E1-4027

ASC GROUP, INC. | ARCHAEOLOGY | ARCHITECTURE | ENVIRONMENT

CULTURAL AND ENVIRONMENTAL CONSULTANTS

October 22, 2007

Jean Cutler
Director, Bureau for Historic Preservation
Pennsylvania Historical & Museum Commission
Commonwealth Keystone Building, Second Floor
400 North Street
Harrisburg, PA 17120-0093

Re: ER 89-1632-042
Pennsylvania Railroad
Atglen and Susquehanna Branch
Enola Low Grade Project
Chester and Lancaster Counties, PA
STB Docket No. AB-167 (Sub-No. 1095X)
Consolidated Rail Corporation/Abandonment Exemption

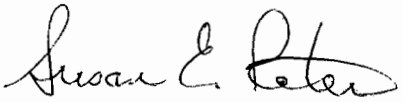
Dear Ms. Cutler:

Enclosed please find a comprehensive Final Report for the above referenced project as well as Pennsylvania Historic Resource Survey (PHRS) Forms with original photographs on the final ten bridges that are contributing elements of the National Register eligible Atglen and Susquehanna Branch rail line built by the Pennsylvania Railroad Company between 1902 and 1906 and most recently operated by Consolidated Rail Corporation. Also included is a CD with the PHRS forms for the ten bridges in a PDF format. The Surface Transportation Board proceeding was later taken over by Norfolk Southern Railway Company. The line was originally named the Atglen and Susquehanna Branch and was sometimes referred to as the Low Grade Railroad. The Report and the PHRS forms are submitted on behalf of Norfolk Southern Railway Company in fulfillment of the documentation stipulations of the Memorandum of Agreement between the Surface Transportation Board, the Advisory Council on Historic Preservation, the Pennsylvania Historical & Museum Commission and the Norfolk Southern Railway Company, originally entered into August 5, 2004 and renewed August 9, 2007.

Also enclosed are two copies of a DVD entitled "Bypassing the Mainline: The Atglen & Susquehanna" created by Commonwealth Media Services in partial fulfillment of the stipulations of the Memorandum of Agreement.

Please contact ASC Group, Inc. with questions or comments about the enclosed Report and PHRS forms. The contact person at Norfolk Southern is Kathy Headrick; she can be reached at (757) 629-2889. Thank you for your assistance.

Sincerely,



Susan E. Peters
Pennsylvania Region Manager

Cc: James R. Paschall, Norfolk Southern Corporation
Troy Brady, Surface Transportation Board
John M. Fowler, ACHP
Jim Ahonen, Norfolk Southern Corporation
Benjamin C. Dunlap, Jr.; Nauman, Smith, Shissler & Hall, LLP

Enc: Final Report
PHRS forms/original photographs
CD with PHRS forms
DVD "Bypassing the Mainline: The Atglen & Susquehanna"

FINAL REPORT

SUBMITTED IN FULFILLMENT OF THE MEMORANDUM OF AGREEMENT FOR:

PENNSYLVANIA RAILROAD
ATGLEN AND SUSQUEHANNA BRANCH
ENOLA LOW GRADE PROJECT
CHESTER AND LANCASTER COUNTIES, PA

STB DOCKET NO. AB-167 (SUB-NO. 1095X)
CONSOLIDATED RAIL CORPORATION/ABANDONMENT EXEMPTION

ER 89-1632-042

PREPARED BY:

NORFOLK SOUTHERN RAILWAY COMPANY
THREE COMMERCIAL PLACE
NORFOLK, VA 23510

ASC GROUP, INC.
801 EAST PARK DRIVE, SUITE 102
HARRISBURG, PA 17111

OCTOBER 2007

TABLE OF CONTENTS

I. REPORT ON BEHALF OF NORFOLK SOUTHERN RAILWAY COMPANY

This report provides the documentation and Pennsylvania Historic Resource Survey Forms regarding The Former Enola Branch Railroad Line, also previously known as the Atglen and Susquehanna Branch or the Low Grade Line, submitted in Accordance with the Renewed Memorandum of Agreement between the Surface Transportation Board, the Advisory Council on Historic Preservation, the Pennsylvania Historical & Museum Commission and Norfolk Southern Railway Company, effective as of August 9, 2007.

A. SUBJECT OF THE MEMORANDUM OF AGREEMENT, REPORT, AND HISTORIC RESOURCE SURVEY FORMS

ASC Group, Inc. (ASC), 801 East Park Drive, Suite 102, Harrisburg, Pennsylvania, 17111, submits the following report and Pennsylvania Historic Resource Survey forms on behalf of Norfolk Southern Railway Company, Three Commercial Place, Norfolk, VA 23510. ASC Group makes this submission in accordance with the terms of the Memorandum of Agreement (MOA) Among the Surface Transportation Board (STB), the Advisory Council on Historic Preservation (ACHP), the Pennsylvania Historical and Museum Commission (PHMC or SHPO) and Norfolk Southern Railway Company (NSR) Regarding the Enola Branch Line. The STB granted NSR an exemption to abandon a segment of this former railroad line, which most recently has been known as the Enola Branch Line (Enola Branch), in *Consolidated Rail Corporation - Abandonment Exemption - Lancaster and Chester Counties, Pennsylvania*, STB Docket No. AB-167 (Sub-No. 1095X). The signatories agreed upon the MOA in order to complete the historic preservation process under Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. 470f, in the STB proceeding.

The original MOA was effective August 5, 2004, the date upon which it was executed by the last signatory to sign it. The signatories executed a renewed and substantively identical MOA because the period for completion of the terms of the MOA technically had expired. The last signatory to execute this renewed MOA signed and dated the MOA on August 9, 2007. (Appendix A).

B. PREPARATION OF THE REPORT AND PENNSYLVANIA HISTORIC RESOURCE SURVEY FORMS

ASC Group, Inc. is a certified, women-owned cultural and environmental resources management company. Susan Peters, manager of the Harrisburg, Pennsylvania office of ASC Group, Inc. is ASC's principal manager for this submission. Susan Peters and Susan Cabot, who worked on this submission, are professional historians. For six years, Ms. Peters served as a Qualified Professional with PennDOT Central Office with responsibility under the PennDOT Programmatic Agreement for Minor Transportation Projects for Section 106 compliance and served as a lead liaison between state and federal agencies and the public sector and has been

active in policy development for state and federal guidelines. She functioned as managing historic structures specialist for the Local Historic Bridge Survey in Pennsylvania and managed and coordinated the National Park Service/Historic American Engineering Record Initiative for historic Pennsylvania bridges. A more detailed resume of her qualifications is attached. (Appendix B)

Susan Cabot is the Principal Investigator for this submission. Her experience includes ten years as a county Historic Preservation Planner in Kentucky where she dealt extensively with Section 106 issues. She also served for two years as a Historic Preservation Specialist with the Pennsylvania State Historic Preservation Office. A more detailed resume of her qualifications is attached. (Appendix B)

Michael Stanilla and Connie Walsh also assisted with the project. Detailed resumes of their qualifications are attached. (Appendix B)

James Paschall, General Attorney for Norfolk Southern Corporation, was a significant contributor to the report.

C. LEGAL PROCEEDINGS CONCERNING ABANDONMENT OF THE ENOLA BRANCH

On October 3, 1989, NSR's predecessor, Consolidated Rail Corporation (Conrail) filed a Notice of Exemption that would permit Conrail to abandon a 33.9-mile line of railroad with the STB's predecessor agency, the Interstate Commerce Commission (ICC). Conrail identified the "Line" in the Notice of Exemption as part of the "Enola Branch." Conrail stated that the Line was located between Milepost 0.0 at Parkesburg, PA (CP Park) and Milepost 33.9 at Port, PA (CP Port). Conrail declared that it had handled no local traffic over this once busy railroad line since at least December 1985 and had handled no overhead traffic over the Line since December 18, 1988. The ICC docketed the Notice of Exemption proceeding as Docket No. AB-167 (Sub-No. 1095X), *Consolidated Rail Corporation - Abandonment Exemption - In Lancaster and Chester Counties, PA.* This report also sometimes refers to the segment of the Enola Branch that was the subject of the ICC and STB proceedings and of the MOA as the "Line."

The Pennsylvania Railroad Company began construction of the entire 50.5 miles of the Line between Parkesburg, PA and Wago Junction, PA in 1902 and finished the construction in July, 1906. Until 1976, the line usually was referred to as the Atglen and Susquehanna Branch or the Low Grade Line. In that year, Conrail changed the old milepost designations and the name of the line.

Since Conrail owned the right-of-way upon which the Line was located in fee simple, Conrail's ICC filing was not intended to result in the abandonment of its property interest in the real estate comprising the Line. Conrail filed the Notice of Exemption only in order to abandon its common carrier obligation to provide rail freight service along the Line. After satisfaction of any conditions imposed by the ICC, now the STB, and consummation of the abandonment of the Line, Conrail could permanently discontinue rail freight service over the Line and subsequently

use or dispose of the property without further regulation by the ICC, now the STB.

In the Notice of Exemption, Conrail described the subject segment of the Enola Branch as "66.5 miles of track." The Line was double tracked between the two end points of the Line at Parkesburg, PA and Port, PA. Conrail intended to abandon all of one of these tracks and most of the other track. Conrail counted the mileage of each track in computing the length of the "track" to be abandoned, rather than describing the length of the Line between the end points of the line segment as is the usual practice in ICC and STB filings. Conrail had included 33.9 miles of track number 2 and 32.6 miles of the parallel track number 1 of the Enola Branch between the specified mileposts in the segment of the Enola Branch line that would be abandoned. Conrail's Notice of Exemption and attachments, and Conrail's and NSR's subsequent filings with the ICC and STB, clarified that the "Line" to be abandoned was only 33.9 miles in length.

The segment of the Line described in Conrail's Notice of Exemption that is between Milepost 0.0 and approximately Milepost 4.03 is in Chester County, PA and passes through West Sadsbury Township. The segment of the Line between Milepost 4.03 and Milepost 33.1 is in Lancaster County, PA, and passes through the Townships of Sadsbury, Bart, Eden, Providence, Martic, Conestoga and Manor and the Borough of Quarryville.

Conrail intended to retain short segments of track at both ends of the Line for industrial track, spur, storage or house tracks or other railroad purposes. While these segments technically would be abandoned as part of a line of railroad subject to ICC jurisdiction, Conrail, and later NSR, would continue to retain short segments of track at each end of the Line as exempt track for the described railroad purposes. The total length of the retained active track segments is slightly longer than the 1.3 miles of track 1 that Conrail did not include in the Notice of Exemption. Conrail continued to serve railroad customers over approximately 1.5 miles of retained industrial track between Milepost 0.0 at Parkesburg, PA and Milepost 1.5 near Lenover, PA. NSR more recently has continued to serve customers located along about the first mile of this segment of track. Conrail renamed the track between Milepost 0.0 and Milepost 1.5 the "Parkesburg Industrial Track." Conrail, and NSR, also intended to retain the segment of the Line between mileposts 33.7 and 33.9 at Port, PA.

In response to Conrail's Notice of Exemption, the ICC served a decision in Docket No. AB-167 (Sub-No. 1095X) on February 22, 1990 that exempted Conrail's abandonment of the subject segment of the Enola Branch from regulation under the Interstate Commerce Act, subject to a condition that "Conrail retain its interest in, and take no steps to alter the historic integrity of 83 the bridges on the line until completion of the section 106 process of the National Historic Preservation Act, 16 U.S.C. 470." The ICC served several other notices and decisions during the next three years. These were routine decisions and were mostly extensions of time for interim trail use agreement negotiations.

After Conrail had negotiated unsuccessfully with Lancaster County and Friends of the Atglen-Susquehanna Trail ("FAST") for this extended three-year period of time in an effort to reach an agreement to convey the right-of-way of the Line to the County or FAST for interim trail use, the

ICC terminated the trail use negotiation condition in a decision served on April 19, 1993. The ICC stated in that decision: "The trail use condition imposed in the February 22, 1990 decision is vacated and Conrail may abandon the line..." As far as Conrail could determine from the ICC's decisions up to that date, the only remaining historic preservation requirement was the documentation of the five bridges that previously were identified by the SHPO as historic properties potentially eligible for listing in the National Register of Historic Places because these were the only properties on the Line at risk of being subject to adverse effects due to the abandonment of the Line. Conrail already had stated its intention to take these structures down. Conrail eventually completed that recordation and submitted the Historic Resources Survey forms for the five bridges to PHMC in 1998. Mr. Kurt W. Carr, Chief of the Division of Archaeology, acknowledged receipt of the State Level of Recordation for the five bridges in a letter to Mr. David C. Eaton, dated June 18, 1998.

Soon after the ICC's decision served April 19, 1993, on September 4, 1993, Conrail filed an application with the Pennsylvania Public Utilities Commission (PUC) in PUC Docket No. A-111016 in which Conrail requested permission to abolish the crossings located along the Enola Branch between Mileposts 4.0 and 27.0. Since there were no structures subject to the PUC's jurisdiction along the remaining segment of the Line between Milepost 27.0 and Milepost 33.9 that was the subject of the Notice of Exemption, this segment of the Line was not included in the PUC proceeding.

Congress abolished the Interstate Commerce Commission as of December 31, 1995. Many of the ICC's regulatory functions were transferred to a newly established federal regulatory agency, the Surface Transportation Board.

Conrail sold approximately 2.5 miles of the Line between approximately Milepost 1.5 near Lenover, PA and Milepost 4.0 near the Chester County/Lancaster County line to the Southeastern Pennsylvania Transportation Authority (SEPTA) by deed dated May 13, 1996. At that time, Conrail believed it could consummate abandonment of the Line, subject to the documentation for historic preservation purposes of the five previously identified bridges. None of those bridges were on the segment sold to SEPTA. Amtrak owns the bridge over its main line at approximately Milepost 1.5.

After lengthy proceedings before the Pennsylvania PUC that included requests for historic preservation and other conditions by Friends of the Atglen-Susquehanna Trail (FAST) and others, Conrail and the Lancaster County Pennsylvania Townships of Conestoga, Martic, Providence, Eden, Bart and Sadsbury and the Chester County Pennsylvania Township of West Sadsbury, entered into a Stipulation of Settlement (Settlement Agreement) dated February 25, 1997. In the Settlement Agreement, Conrail agreed to convey the real property under the Line that was located in each Township, except for certain property in Conestoga Township located beyond Milepost 27.0 and the property located in West Sadsbury Township, to the respective Townships. No property was to be conveyed to West Sadsbury Township, but Conrail agreed to pay West Sadsbury Township, jointly with Sadsbury Township, $60,000 in consideration of the future maintenance by the Townships of the bridge at Noble Road on the Township boundary

line. Conrail also agreed to convey the real property comprising the Line in the Borough of Quarryville, PA, which did not participate in the Settlement Agreement, to Providence Township. Although the Line passes into Manor Township between approximately Milepost 33.1 and Milepost 33.9, no structure subject to the jurisdiction of the Pennsylvania PUC is located in Manor Township. Thus, Manor Township is not a party to the Settlement Agreement between Conrail and the other Townships.

The Settlement Agreement noted that Conrail's title to the property to be conveyed was burdened by the previous conveyance of an easement to Amtrak for the purpose of locating and maintaining Amtrak's electric power transmission line on the Line between Safe Harbor, PA (at approximately Milepost 28.3) and Parkesburg, PA (Milepost 0.0). Under the Settlement Agreement, Conrail also would retain an easement to perform any necessary work in connection with maintenance of the power line. In consideration of future maintenance of various specified bridges on the Line or other undertakings described in the Settlement Agreement, Conrail agreed to pay various specified amounts of money to the Townships. The Townships consideration to Conrail simply was to relieve it of the future ownership and maintenance of the property.

At the same time, Conrail also entered into a Stipulation of Settlement with the Pennsylvania Department of Transportation (PennDOT). In that Stipulation of Settlement, PennDOT consented to demolition of the structures along the Line which Conrail and the Townships agreed to demolish. PennDOT also agreed to maintain certain other specified structures that would be retained along the Line.

The Pennsylvania PUC approved the Stipulations of Settlement in its order entered October 9, 1997 in A-00111016, *Application of Consolidated Rail Corporation for the abolition of 31 Crossings of the Enola Branch*, LC: 201323, *MP 3.5 to MP 27.0, Sub No. 1095X, Harrisburg Division, Lancaster County* and C-00913256, *Board of Supervisors of Bart Township* v. *Consolidated Rail Corporation, Pennsylvania Department of Transportation, and Lancaster County, et al.* On appeal, in a brief order without opinion, the Supreme Court of Pennsylvania eventually affirmed the Pennsylvania PUC order in No. 0782, M.D. Allocatur Docket 1998, *Friends of the Atglen-Susquehanna Trail, Inc. and Historic Preservation Trust of Lancaster County* v. *Pennsylvania Public Utility Commission*, June 29, 1999.

In an STB decision served on October 2, 1997, just a week before the Pennsylvania PUC approved the Settlement Agreements, the STB denied a petition filed by Friends of the Atglen-Susquehanna Trail, Inc. (FAST) to reopen the Docket No. AB-167 (Sub-No. 1095X) proceeding for the purpose of broadening the historic preservation condition applicable to the abandonment of the Line. FAST asked the STB to include the entire property as a "linear resource," not just the previously identified bridges, as potentially eligible for listing in the National Register of Historic Places and to impose additional conditions upon the abandonment. The STB modified the previously imposed "stay" condition that required Conrail not to alter the historic integrity of certain bridges and potential archaeological sites near the bridges because no further identification of these sites had been made during the long period that the matter had been pending.

In a further decision served August 13, 1999, the STB denied FAST's petition for reconsideration of the Board's 1997 decision, imposed the mitigation conditions that the Board, the SHPO and Conrail had previously agreed upon, including recordation of certain bridges along the Line and terminated the Section 106 process. FAST petitioned for judicial review of the STB's 1997 and 1999 decisions to the United States Court of Appeals for the Third Circuit.

Norfolk Southern Corporation (NSC), a non-carrier holding company and parent of NSR, entered into a Transaction Agreement (the Conrail Transaction Agreement) among NSC; NSR; CSX Corporation (CSX); CSX Transportation, Inc. (CSXT), a wholly-owned subsidiary of CSX; Conrail Inc. (CRR); Conrail, a wholly-owned subsidiary of CRR; and CRR Holdings LLC, dated June 10, 1997, pursuant to which CSX and NSC indirectly acquired all the outstanding capital stock of CRR. The Conrail Transaction Agreement was approved by the STB in a decision served July 23, 1998 in STB Finance Docket No. 33388, *CSX Corporation and CSX Transportation, Inc., Norfolk Southern Corporation and Norfolk Southern Railway Company - Control and Operating Leases/Agreements - Conrail Inc. and Consolidated Rail Corporation.* The transaction was closed and became effective June 1, 1999.

Pursuant to the Conrail Transaction Agreement, NSR, CSXT and Conrail allocated certain Conrail assets, including Conrail's interest in the "Enola Branch," to Pennsylvania Lines, LLC, (PRR), a wholly-owned subsidiary of Conrail. In a further action under the Conrail Transaction Agreement, NSR leased and operated PRR's assets under the terms of an allocated assets operating agreement between PRR and NSR. CSXT leased and operated other Conrail assets that were allocated to another new Conrail subsidiary, New York Central Lines, LLC (NYC). Conrail retained some assets, principally operating properties in the Detroit, Northern New Jersey and Southern New Jersey/Philadelphia areas. Conrail continues to operate the lines in these areas as "Shared Asset Areas" for the joint benefit of NSR and CSXT in serving their customers in the areas. Conrail also retained responsibility for certain pre-Transaction obligations, including the Settlement Agreements with the Townships and PennDOT.

Because NSR's lease and operation of the PRR properties did not begin until June 1, 1999 and the pleadings concerning the petition for reconsideration had already been filed with the Board, NSR did not participate in the proceeding until after the STB served the August 13, 1999 decision.

In *Friends of the Atglen-Susquehanna Trail, Inc.* v. *Surface Transportation Bd.*, 252 F.3d 246 (3rd Cir. 2001), the United States Court of Appeals for the Third Circuit remanded the Board's 1997 and 1999 decisions in Docket No. AB-167 (Sub-No. 1095X) for further Section 106 handling. The remand was based solely on procedural grounds. The Court had been persuaded that the ICC and STB had not fully complied with the Section 106 procedures in terminating the Section 106 process in the subject docket. Thus, by notice served October 24, 2002, the STB reinitiated the historic preservation process under the procedures of Section 106 of the National Historic Preservation Act in compliance with the decision of the United States Court of Appeals.

The STB received and considered numerous Comments and Reply Comments concerning the Section 106 process and possible mitigation measures for any adverse effect the abandonment of the Line might have on historic resources. The Comments and Reply Comments were filed with the STB in the reopened proceeding in Docket No. AB-167 (Sub-No. 1095X) on or before December 9, 2002 and December 30, 2002.

After extensive study and consultations in connection with the Section 106 process, the Section of Environmental Analysis of the STB served a Notice to the Public and Draft Memorandum of Agreement (MOA) served on October 20, 2003. NSR and many other parties filed comments in response to the Notice and Draft MOA.

The STB received comments on the Draft MOA for 45 days after the service date of the Notice to the Public. The STB also held a public hearing to solicit oral comments on the case and the proposed draft MOA at the Hoffman Building, located at the Solanco Fair Grounds in Quarryville, PA, on November 19, 2003

In a Notice To The Parties, served April 12, 2004, the STB summarized and responded to all Comments received in response to the October 2003 Notice And Draft Memorandum Of Agreement (MOA) and presented the Final MOA, which set forth measures for mitigating adverse effects of the proposed rail line abandonment on historic properties.

In a decision served June 3, 2004, the STB denied the County of Lancaster, PA's request for issuance of a Notice of Interim Trail Use (NITU). NSR had responded to the request by pointing out that it could not agree to negotiate with the County for an interim trail use agreement under a NITU because of the terms of the outstanding Settlement Agreements.

On June 4, 2004 Norfolk Southern Corporation (NSC), CSX Corporation (CSX), and Consolidated Rail Corporation (Conrail) announced the joint filing of a petition with the Surface Transportation Board (STB) for the purpose of securing approval of their proposal to establish direct ownership and control by CSX Transportation, Inc. (CSXT) and Norfolk Southern Railway Company (NSR), the railroad subsidiaries of CSX and NSC, respectively, of the two Conrail subsidiaries - New York Central Lines LLC (NYC) and Pennsylvania Lines LLC (PRR) that CSXT and NSR leased, managed and operated, respectively, starting June 1, 1999. The STB approved the petition, subject to certain conditions, in a decision served on November 7, 2003. The transaction, which was concluded on August 27, 2004 by the merger of NYC and PRR into CSXT and NSR, respectively, replaced the PRR-NSR and NYC-CSXT operating agreements and allowed NSR and CSXT to operate the NYC and PRR lines via direct ownership.

In a decision served January 19, 2005, the STB stated that the executed Final MOA had been filed with the Advisory Council for Historic Preservation (ACHP) on August 4, 2004. That completed the historic review process in Docket No. AB-167 (Sub-No. 1095X) and demonstrated the Board's compliance with the NHPA and the Court of Appeals decision. Accordingly, the STB removed the historic preservation condition imposed in the proceeding and declared the abandonment licensing proceeding concluded, thereby allowing the railroad to

fully abandon the line. NSR consummated the abandonment of the Line by a letter of consummation dated February 17, 2005, and received by the STB on February 22, 2005, NSR consummated the abandonment of the Line.

Before NSR and Conrail could convey to the Townships the segments of the Enola Branch which were subjects of the Settlement Agreement, Lancaster County brought an action in State court to condemn the Line. Ultimately, in *In Re Condemnation by the County of Lancaster*, 909 A.2d 913 (Pa. Cmwlth. 2006), filed October 30, 2006, the Commonwealth Court of Pennsylvania affirmed the decision of the Lancaster County Common Pleas Court which found the County's exercise of eminent domain over the railroad right-of-way was prohibited by 16 Pa. Stat. Ann. § 2402. Except for some local proceedings and transaction and closing details, this Court decision cleared the way for the expected imminent conveyance of the segments of the Line to the Townships in accordance with Settlement Agreement.

D. HISTORICAL OVERVIEW
IDENTIFICATION AND LOCATION OF THE ENOLA BRANCH, ORIGINALLY KNOWN AS THE ATGLEN AND SUSQUEHANNA BRANCH OR THE LOW GRADE LINE

The Pennsylvania Railroad Company constructed the "Enola Branch," originally called the "Atglen and Susquehanna Branch," to provide extra capacity over an additional and nearly parallel route to a congested segment of the Pennsylvania Railroad Company's Trenton, NJ-Harrisburg, PA main-line cutoff route between Parkesburg, PA or Atglen, PA and Enola Yard at Enola, PA, just west of Harrisburg, PA. The nearer terminus of the entire 50.5 mile Line to Enola, PA at the time the Pennsylvania Railroad constructed the Line most recently known as the "Enola Branch" was at Wago Junction, PA, nearly twenty (20) miles from Enola. In turn, Wago Junction, PA is sixteen (16) miles further along NSR's active railroad line from the end point of the subject Line segment at Port, PA. The Pennsylvania Railroad constructed the line at Enola, PA and Enola Yard south to York Haven, PA, at an earlier time.

The subject Line also has been called the "Low Grade Line" from time to time because it was designed to provide a low grade route through Lancaster County, PA between Parkesburg, PA, near Atglen, PA and a point near Safe Harbor, PA at the Susquehanna River. This designation was potentially confusing because one or more other Pennsylvania Railroad Company lines in Pennsylvania also at times have been called the "low grade line".

At Atglen, PA, the Enola Branch Line reached the Pennsylvania Railroad's Trenton, NJ-Harrisburg, PA main line, which is now owned by Amtrak. NSR continues to have operating rights to provide railroad freight transportation over this Amtrak Line. At a point near Safe Harbor, PA, the Line begins to parallel the Port Road Branch. Almost all of the rest of the original "Atglen and Susquehanna Branch," or now the "Enola Branch" between Safe Harbor, PA and Wago Junction, PA, except for a few miles of line between Shocks Mill, PA and Wago Junction, PA, paralleled some other line of the Pennsylvania Railroad or a subsidiary of the Pennsylvania Railroad when the Line was constructed.

The Port Road Branch, which already existed when the Pennsylvania Railroad constructed the "Enola Branch," paralleled the Enola Branch between approximately Milepost 27.0 and approximately Milepost 33.1, where the two branches connected. A short distance beyond this point, the Port Road Branch diverges from the Enola Branch at the bridge over the Susquehanna River at Shocks Mill, PA. This point is near Wago Junction, PA, the western terminus of the 50.5-mile Line constructed by the Pennsylvania Railroad between 1902 and 1906. The Port Road Branch runs mainly along the Susquehanna River between Perryville, MD (Milepost 0.0), an important freight railroad point on the Northeast Corridor between Washington and New York, and Columbia, PA (Milepost 44.4), where the branch continues to Harrisburg, PA under another name.

The Northern Central Railway Company, a Pennsylvania Railroad subsidiary, operated a branch line between Enola, PA and Wago Junction, PA when the Pennsylvania Railroad Company built current "Enola Branch". At that time of that construction between 1902 and 1906, the Northern Central Railway line at Wago Junction, PA was located 1.8 miles from York Haven, PA. The Northern Central Railway line ran from that station to York, PA and from there to Baltimore, MD. When the Pennsylvania Railroad built the "Enola Branch," the Northern Central Railway expanded the number of tracks on its line between Wago Junction, PA and York, PA from two to four tracks.

For about ten years starting in 1959, the Pennsylvania Railroad Company and the New York Central Railroad Company pursued a merger through Interstate Commerce Commission (ICC) proceedings and court appeals. Eventually, the merged company came into existence as the Penn Central Transportation Company. In order to render the transaction consistent with the public interest as interpreted by the Commission at the time, the ICC required, among other things, that the New York, New Haven and Hartford Railroad Company (New Haven) and its affiliates and subsidiaries be included upon fair and equitable terms later to be determined by the ICC with the approval of the courts. Although the ICC permitted consummation of the Penn Central merger before the Commission reached a final decision on the inclusion of the New Haven in the Penn Central, the ICC made clear that consummation of the merger would constitute full and complete assent by merging parties as to the New Haven's ultimate inclusion in the merged company.

In *The Baltimore & Ohio Railroad Co. et al.* v. *United States et al.*, 386 U.S. 372; 87 S. Ct. 1100; 18 L. Ed. 2d 159 (1967), the United States Supreme Court found that the ICC should not have approved consummation of the merger before the Commission decided upon whether to include not just the New Haven but the three other railroads to be protected as a condition of approval of the Pennsylvania Railroad Company-New York Central Railroad Company merger and the contemporaneous Norfolk and Western Railway Company, the Wabash Railroad Company and the New York, Chicago and St. Louis Railroad Company (the "Nickel Plate" Railroad) merger, the Erie Lackawanna Railroad Company, the Boston and Maine Railroad Company, and the Delaware and Hudson Railroad Company into either the Pennsylvania-New York Central or Norfolk and Western merged systems. This Supreme Court decision delayed consummation of the Penn Central transaction for an even longer period of time, to the financial detriment of all the parties.

The Penn Central consummated the inclusion of the New Haven into the Penn Central pursuant to the ICC's order of January 1, 1969. Some 18 months after the inclusion and consummation of the merger, Penn Central was at the reorganization court, alleging that it was virtually without cash, was unable to meet its debts as they matured, had no means of borrowing or otherwise procuring funds to pay and discharge its debts and obligations, and was desirous of effecting a reorganization pursuant to section 77 of the United States Bankruptcy Code. Inclusion of the New Haven, which was weighed down by being the fourth largest private carrier of passengers in the world, in the Penn Central system produced some of the financial and operating problems that bankrupted the Penn Central Transportation Company less than two years after its creation through the merger of the Pennsylvania Railroad and the New York Central Railroad.

The Penn Central Transportation Company filed a petition for reorganization under section 77 of the Bankruptcy Act, 11 U.S.C. §§ 205 et seq., on July 21, 1970. Subsequently, the United States District Court for the Eastern District of Pennsylvania appointed W. Willard Wirtz, George P. Baker, Jervis Langdon, Jr., and Richard C. Bond as trustees.

Hurricane Agnes did considerable damage to the railroad lines in Lancaster County and vicinity in 1972. Although the Penn Central Transportation Company repaired the damage to the Enola Branch, the Penn Central abandoned the former Quarryville Branch that was ruined by the hurricane. Penn Central, which was in bankruptcy, could not justify repair of that branch based on the expected revenue levels from railroad traffic expected to be handled on the branch in the future.

The trustees of Penn Central proposed a plan of reorganization of the debtor, which, absent Federal or other external financial assistance by October 1, 1973, would have permitted continued rail service over the Penn Central lines for not more than another year. Cessation of the debtor's service would be phased in over a 10-week period beginning October 31, 1973.

In 1973, Congress enacted the Regional Rail Reorganization Act (the 3R Act) in an effort to reorganize the bankrupt Northeastern and Midwestern railroads, including the Penn Central. The statute created the United States Railway Association (USRA), a new government corporation, to "engage in the preparation and implementation of the final system plan." 3R Act, §§ 201, 202(a)(1), later codified at 45 U.S.C. §§ 711, 712(a)(1) (1976).

The Final System Plan was envisioned as a "basic document which will identify the necessary rail services in the Midwest and Northeast region and propose needed restructuring, rehabilitation, and modernization." S.Rep.No. 601, 93d Cong., 1st Sess. 25, reprinted in (1973) U.S.Code Cong. & Ad.News 3242, 3265. Although the 3R Act established eight goals which the Final System Plan was to effectuate, Congress identified the "two basic goals," id., as "(1) the creation, through a process of reorganization, of a financially self-sustaining rail service system in the region; (and) (2) the establishment and maintenance of a rail service system adequate to meet the rail transportation needs and service requirements of the region." 3R Act, § 206(a)(1), (2), later codified at 45 U.S.C. § 716(a) (1), (2).

Congress also required the Final System Plan was also required to designate, inter alia, which rail properties of the bankrupt railroads were to be transferred to the Consolidated Rail Corporation (Conrail); which properties were to be offered for sale to profitable railroads in the Midwest and Northeast region; and which properties were to be available for purchase or lease from Conrail by a state or a local or regional transportation authority to meet the needs of commuter rail passenger service. 3R Act, § 206(c)(1)(A), (B), (D), later codified at 45 U.S.C. § 716(c)(1)(A), (B),(D) (1976). The USRA was obliged to submit the Final System Plan to Congress. 3R Act § 208(a), later codified at 45 U.S.C. § 718(a) (1976). When the Final System Plan was submitted to Congress on July 26, 1975, either House or Congress exercised its statutory opportunity to disapprove the Plan. Therefore, the Final System Plan was then deemed approved by Congress.

After the Final System Plan became effective, the USRA was required transmit the Plan to the Special Court, Regional Railroad Reorganization Act, which had exclusive jurisdiction of all proceedings concerning the Plan. 3R Act, §§ 209. Under the Act, within 10 days after deposit with the Court of Conrail securities and USRA obligations, the Special Court ordered the railroad trustee to convey forthwith to Conrail the railroad's properties designated in the Plan. §§ 303 (b). The Special Court then was required to determine under §§ 303 (c), with appeals extending to the United States Supreme Court, whether the conveyance was fair and equitable to the railroad's estate under §§ 77 standards, or whether the transfer was more fair and equitable than a constitutional minimum required (in which case necessary adjustments were to be made). If the Special Court found the conveyance not fair and equitable, the court was required to reallocate, or order issuance of additional Conrail securities and USRA obligations, enter a judgment against Conrail, or combine such remedies.

The railroads that comprised Conrail were permitted to discontinue service and abandon properties not designated for transfer under the Final System Plan before Conrail began operations, but until the Final System Plan became effective, they were permitted only to discontinue service or abandon any line only with USRA's consent and absent reasonable state opposition. §§ 304 (f). FSP and the December 1, 1975, Official Errata Supplement.

Consolidated Rail Corporation was incorporated in Pennsylvania on October 25, 1974, as a result of the Regional Rail Reorganization Act of 1973 (3R Act), 45 U.S.C. § 741. Pursuant to that Act, and under the Final System Plan described above, Conrail received the transfer of the property of the bankrupt northeastern railroads and took over and continued their rail operations, beginning its operations as a common carrier by railroad on April 1, 1976. Substantially all of the rail properties of the bankrupt railroads (Penn Central Transportation Co., Reading Co., Erie Lackawanna R. Co., Central R. Co. of New Jersey, Lehigh Valley R. Co., and Lehigh and Hudson River R. Co.) and their remaining subsidiaries which were secondary debtors in their bankruptcy proceedings were conveyed to Conrail on that date. Some track of these railroads was abandoned and small segments of track were conveyed to other solvent railroads in the territory or to commuter railroads. The Northeast Corridor lines between Washington, DC and Boston, MA and between Philadelphia, PA and Harrisburg, PA were re-conveyed to Amtrak

from Conrail on the date the property was acquired by Conrail, according to a provision of the final system plan.

Due to changing traffic patterns and a decline in railroad shipments, NSR's predecessor, Consolidated Rail Corporation (Conrail), moved no local rail traffic for shippers or receivers of freight located on the subject segment of the Enola Branch after a date no later than December 1985. Conrail moved no overhead rail traffic over the line after December 18, 1988 when Conrail terminated all rail service over the subject segment of the Enola Branch. The legal histories of Conrail's and NSR's efforts to abandon the Line and of the Conrail Transaction under which NSR acquired certain Conrail assets are detailed above.

The segment of the Line between Milepost 27.0 and Milepost 33.9 includes part of the easement for the Amtrak electric power transmission line between approximately Milepost 28.3 at Safe Harbor, PA and Milepost 0.0 at Parkesburg, PA. The bridge over Conestoga Creek at Safe Harbor is at approximately Mileposts 27.3-27.7 but the Amtrak power line easement extends to approximately Milepost 28.3.

As previously noted, Conrail and NSR intended to retain short segments of track at both ends of the Line for industrial track, spur, storage or house tracks or other railroad purposes. Moreover, since the Settlement Agreement does not include the segment of the Line between Milepost 27.0 and Milepost 33.9, NSR will continue to own or be responsible on behalf of Conrail for that property after conveyance of the remaining segment of the Line in Lancaster County to the Townships (and now the Borough of Quarryville) unless and until some further agreement on disposition of the property is made.

A comprehensive narrative of the history of the Line was produced by Mr. Frederick H. Abendschein in his article entitled: "The Atglen and Susquehanna: Lancaster County's Low Grade," *The Keystone*, Volume 27, Number 4, Winter 1994, page 10, The Official Publication of the Pennsylvania Railroad Technical and Historical Society. A copy of this article is attached. (Appendix C)

E. PREVIOUS RECORDATION OF STRUCTURES ON THE ENOLA BRANCH

The bridges along the Line previously recorded by Conrail to Pennsylvania historic preservation survey standards on Historic Resource Survey Forms are the 94-foot through truss bridge over the Line at Milepost 4.70 at Orchard Buck Road in Sadsbury Township, which is also in the Pennsylvania Historic Bridge Inventory and Evaluation; the 30-foot stone arch bridge at Milepost 11.68 over Pumping Station Road (LR 36086) in Eden Township; the 24-foot stone arch bridge at Milepost 14.46 over Oak Bottom Road in Providence Township; the 24-foot stone arch bridge at Milepost 14.62 over U. S. Route 222 in Providence Township; and the 24-foot stone arch bridge at Milepost 18.08 over Hollow Road in Providence Township.

In addition to the Orchard Buck Road bridge, two of the other eight highway bridges along the Line were documented in the Pennsylvania Historic Bridge Inventory and Evaluation: the bridge

over the line at Mileposts 8.78, variously identified as TR 774 Quarry Road or Lamparter Road and the bridge over the line at Milepost 15.00 Fairview Road or Fairview Church Road.

The Safe Harbor Bridge over Conestoga Creek near the Susquehanna River at Milepost 27.36 has been documented to HABS/HAER standards (Library of Congress Call Number HAER, PA, 36SAHAR, 1, Survey Number HAER PA531.) (Appendix D)

F. NEW HISTORIC RESOURCE SURVEY RECORDATIONS AND REMAINING STRUCTURES ON THE LINE

The bridges or structures for which State Level Recordation is included with this submission include the following bridges or structures that have not been built or substantially rebuilt in the past 50 years, or that are especially significant, in addition to those bridges already documented: (1) the 60-foot stone arch bridge at Milepost 4.03 over Octoraro Creek and LR 36009 (Noble Road); (2) the 32-foot stone arch bridge at Milepost 7.61 over Vintage Road; (3) the 47-foot stone arch bridge at Milepost 13.83 at Church Street; (4) the 39-foot stone arch bridge at Milepost 19.48, over LR 36007, Route 272 North; (5) the 50-foot stone arch bridge at Milepost 19.61, over LR 36025, Route 272 South; (6) the 24-foot stone arch bridge at Milepost 23.04, over Marticville Road, PA Route 324; (7) the 588-foot Martic Forge Trestle Bridge at Milepost 23.75 over LR 36005 and Pequea Creek; (8) the 24-foot stone arch bridge over Shenk's Road at Milepost 25.73 and the two 10-foot brick arch bridges or culverts (9) at Milepost 26.33 over Boatman Run and (10) at Milepost 26.52 over Gardners Run, which are examples of original brick arch structures of 20 feet or less in length on the line, which are over named streams and have not been substantially rebuilt. (Appendix E)

G. REMAINING STRUCTURES ON THE LINE

The current recordations result in a total of 18 documented bridges or structures on the Line. The sixty (60) other existing or former structures on the Line can be categorized as follows: four (4) have been removed, one (1) (over private Pawnals Road) seems to have been removed and (1) the "silt tunnel," a large concrete culvert built in 1954, has been bricked up (6); two (2) are simply large pipes, one of which is metal and dates to 1941; five (5) are owned by Amtrak or Amtrak/PRR jointly, have been rebuilt, and are still in service on the Parkesburg Industrial Track, which is not part of the Line to be abandoned; seven (7) are on the segment of the line sold to SEPTA and most of them are in one of the other categories listed in this paragraph as well; ten (10) are the modern highway bridges that were not built or maintained by the railroad (five PennDOT; five Townships' responsibility), which are identified in the next paragraph; nine (9) have been substantially rebuilt since their initial construction and twenty-one (21) are 20 feet or shorter in length, which was the cut-off length for bridges surveyed in the Pennsylvania Historic Bridge Inventory and Evaluation. Of these twenty-one (21) short "bridges," most of which are brick arch culverts or concrete slabs, twelve were substantially rebuilt after their initial construction. Two (2) such small structures which are over named streams and which were listed by Conrail as not having been substantially rebuilt since the original construction of the Line were included in the ten (10) new Historic Resource Surveys as the best examples of such

structures in the ten structures listed for further recordation.

The modern highway bridges along the Line include the highway bridges over the Line at Milepost 8.22 at Georgetown Road (State Route 896) in Bart Township (1985); Milepost 12.15 at Hess Road in Eden Township (1988); Milepost 13.32 at State Street in Quarryville Borough (1959); Milepost 15.91 at Cinder Road in Providence Township (1983); Mileposts 16.75 and 20.51 at Rawlinsville Road in Providence Township (two bridges, T-505 (1983) and T-442 (1957); and Mileposts 17.12 and 18.69 at Sawmill Road in Providence Township (two bridges, T-435 (1959) and T-436 (1953), listed as "new" on one railroad list), and Milepost 24.64 at River Hill Road in Conestoga Township (1963).

H. ADDITIONAL INFORMATION AND RESOURCES

Attached is a map of the Line, a Track Chart for the Line and the 1989 Conrail list of bridges for the Line. (Appendix F)

Submitted with this report is a DVD "Bypassing the Mainline: The Atglen & Susquehanna", created by Commonwealth Media Services, which contains a comprehensive look at the history of the Line. NSR paid for the production of this video.

Conrail stated in the Notice of Exemption filed with the ICC on October 3, 1989, that it had submitted photographs of structures 50 years old or older [a total of 83], all of which were highway, railroad or stream bridges, to the Bureau of Historic Preservation, Pennsylvania Historical and Museum Commission, for review.

Copies of pictures of 31 bridges or structures along the Enola Branch previously have been submitted to the signatories of the MOA in connection with the STB and Pennsylvania PUC proceedings.

I. RESEARCH METHODS AND RESOURCES

ASC Group obtained considerable information concerning the Line from NSR, the majority of which is referenced in the preceding report and some of which is found in Appendices C, D, and F. Frederic Abendschein's 1994 article "The Atglen and Susquehanna: Lancaster County's Low Grade" in the Keystone magazine (Appendix C) provides a definitive history of the Line which incorporated a number of previous resources. Also informative is David Messer's 1999 Triumph II: Philadelphia to Harrisburg, 1828-1998 (Book Two of a four book series on the history of the Pennsylvania Railroad), Chapter Six entitled "Rolling Freight II: The Low-Grade Line." Particularly valuable in this resource are the photographs, many from the collections of the Railroad Museum of Pennsylvania, which show bridges along the Line in various stages of construction.

ASC further researched information for the Historic Resource Survey Forms in the files of the PHMC's Bureau for Historic Preservation, in the State Library of Pennsylvania, both located in

Harrisburg, and through basic structural bridge information from "Project Keystone; A Stone Arch Bridge Management Plan" located in the Cultural Resources Section of the PennDOT internet site.

Records of the construction and railroad employees who actually built the Line are difficult to locate especially because many of the laborers were immigrants whose life histories have faded into anonymity.

A substantial amount of information for the PHRS forms was acquired through on-site field work which included several visits to each bridge, photography and analysis of current conditions and overall context of the Line as it historically ran through southern Lancaster County.

APPENDIX A

MEMORANDUM OF AGREEMENT

MEMORANDUM OF AGREEMENT

AMONG THE SURFACE TRANSPORTATION BOARD
AND
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
AND
THE PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
AND
NORFOLK SOUTHERN RAILWAY COMPANY

REGARDING DOCKET No. AB-167 (Sub-No. 1095X)
CONSOLIDATED RAIL CORPORATION
– ABANDONMENT EXEMPTION –
LANCASTER AND CHESTER COUNTIES, PENNSYLVANIA

WHEREAS, in 1989 Consolidated Rail Corporation (Conrail) filed a notice of exemption with the Interstate Commerce Commission (ICC)[1] pursuant to 49 CFR 1152.50 seeking an exemption from the requirements of 49 U.S.C. 10903 to abandon a segment of a line of railroad commonly known as the Enola Branch. The Enola Branch extends generally westward from Milepost 0.0 in Parkesburg, Chester County, PA to Milepost 33.9 at Port in Lancaster County, PA.[2] The Enola Branch passes through the Townships of Sadsbury, Bart, Eden, Providence, Martic, Conestoga, and Manor, and the Borough of Quarryville in Lancaster County, and the Township of West Sadsbury, the Borough of Atglen, and the City of Parkesburg in Chester County;

WHEREAS, the portions of the Enola Branch that are the subject of this Memorandum of Agreement are those between Mileposts 0.0 to 1.5 and Mileposts 4.0 to 33.9.[3]

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[1] The ICC Termination Act of 1995, Pub. L. No. 104-88, abolished the ICC and transferred certain rail functions, including the rail line abandonment functions at issue in this case, to the Surface Transportation Board (Board), effective January 1, 1996.

[2]Conrail described the Enola Branch in its 1989 notice of exemption filing as two parallel tracks of a double tracked line. Track number 1 extended 32.6 miles from Milepost 1.1 in Parkesburg to Milepost 33.7 in Manor Township. Track number 2 extended 33.9 miles from Milepost 0.0 in Parkesburg to Milepost 33.9 in Manor Township.

[3]Conrail sold the portion of the Enola Branch from Milepost 1.5 to Milepost 4.0 to the Southeastern Pennsylvania Transportation Authority in 1996. On June 23, 1997, Norfolk Southern Railway Company (NS) and CSX Transportation Inc. sought permission from the Board to acquire Conrail and to divide its assets between them. On July 23, 1998, the Board approved the Conrail Acquisition. CSX Corp., et al. – Control – Conrail Inc., et al., 3 S.T.B. 196 (1998). The Enola Branch property was allocated to Pennsylvania Line LLC, a subsidiary of Conrail, as part of the Conrail Acquisition transaction. NS operates the Pennsylvania Line LLC allocated assets under an operating agreement approved by the Board. This Memorandum of Agreement pertains to the NS-controlled portions of the Enola Branch.

WHEREAS, the ICC issued a decision served February 22, 1990 allowing the abandonment subject to a condition, developed as a result of consultation with the Pennsylvania State Historic Preservation Officer (SHPO), that Conrail take no steps to alter the historic integrity of the bridges – the only properties on the Enola Branch that had been identified as potentially eligible for inclusion on the National Register of Historic Places (National Register) – until completion of the Section 106 process of the National Historic Preservation Act (NHPA), 16 U.S.C. 470f;

WHEREAS, the purpose of the condition was to allow the ICC to work with consulting parties to develop a plan to avoid, minimize, or mitigate any adverse effects of the abandonment on the bridges. The development of a mitigation plan was held in abeyance, pending negotiations to transfer the Enola Branch for interim trail use/railbanking under 16 U.S.C. 1247(d) (Trails Act) or other public use under former 49 U.S.C. 10906 (now 49 U.S.C. 10905). When those negotiations proved unsuccessful,[4] the agency resumed the NHPA process;

WHEREAS, while the Board's Section of Environmental Analysis (SEA) was working through the steps of the NHPA process, Friends of the Atglen-Susquehanna Trail, Inc. (FAST) filed a petition with the Board to reopen the proceeding and broaden the NHPA condition so that it would apply to the entire Enola Branch;

WHEREAS, the Board denied FAST's request in a decision served October 2, 1997, and FAST filed a petition for reconsideration;

WHEREAS, the Board, in a decision served August 13, 1999, believing that the only part of the NHPA process still open was the development of mitigation for bridges determined to be historic, denied FAST's petition for reconsideration of the 1997 decision and FAST then sought judicial review;

WHEREAS, in Friends of the Atglen-Susquehanna Trail, Inc. v. Surface Transportation Bd., 252 F.3d 246 (3rd Cir. 2001), the United States Court of Appeals for the Third Circuit vacated the Board's 1997 and 1999 decisions and remanded the case back to the Board, ruling that the Board had failed to comply fully with the procedural requirements of the NHPA;

WHEREAS, SEA has reinitiated ~~the~~ Section 106 historic review process pursuant to the court's remand and the procedural provisions of the NHPA including FAST and 13 state and local government entities as consulting parties;

WHEREAS, SEA has consulted with the Advisory Council on Historic Preservation (ACHP), the SHPO, and NS, and in two Notices to the Parties and two public meetings solicited oral and written comments from the consulting parties (all of whom are either invited signatories or concurring parties to this Memorandum of Agreement) and the public regarding possible use of the portions of the Enola Branch that

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[4]The ICC terminated the trail-use negotiation condition with respect to the Enola Branch in a decision served April 19, 1993.

are subject to this Memorandum of Agreement for interim trail use/railbanking. Assuming that no arrangement for interim trail use/railbanking is reached, completion of the mitigation phase of the Section 106 process by execution and implementation of this Memorandum of Agreement is appropriate;

WHEREAS, based on the Keeper of the National Register's 1999 finding that the entire Enola Branch is eligible for inclusion in the National Register, and in consultation with the ACHP and the SHPO, SEA has determined that the entire Enola Branch is eligible for inclusion in the National Register;

WHEREAS, based on consultation with the ACHP and the SHPO and the public comments, SEA has determined that the abandonment at issue here would adversely affect the Enola Branch;

WHEREAS, NS already has paid to the Pennsylvania Railroad Museum $15,437 to fund an exhibit or video of the history of the Enola Branch;

WHEREAS, based on consultation with the ACHP, the SHPO, and NS, and considering the oral and written comments received from interested and official consulting parties, SEA has devised additional measures to mitigate the adverse effects on the Enola Branch that would be caused by abandonment;

NOW THEREFORE, the Board, the ACHP, the SHPO, and NS agree that, assuming that the Board gives final approval to abandon and there is no agreement for interim trail use/railbanking, abandonment of the Enola Branch shall be subject to the following stipulations to mitigate the effect of the abandonment on historic properties.

STIPULATIONS

The Board shall ensure that the following measures are carried out. The Board may direct NS (and its contractor) to assist in fulfilling these stipulations or may use an independent third-party contractor, working under SEA's supervision, direction, and control, and at NS's expense, to assist in fulfilling these stipulations.

I. ADDITIONAL DOCUMENTATION REQUIREMENTS

NS shall retain a professional historian[5] to document and conduct archival research of the history of the Enola Branch rail line (including the segments of the Enola Branch from Milepost 0.0 to Milepost 1.5 and Milepost 4.0 to Milepost 33.9 and appropriate representative structures). The documentation shall be completed in accordance with the relevant state standards as specified by the SHPO and outlined in the guidance document titled "How to Complete the Pennsylvania Historic Resource Survey Form." The

[5] The professional historian will meet the "Secretary of Interior's Professional Qualification Standards" as specified in Section 800.2(a)(1). 48 FR 44738-9; see http://www2.cr.nps.gov/laws/ProfQual83.htm).

historian shall also prepare a written report discussing the methods and results of the archival research.[6]

Prior to the commencement of documentation efforts, the Board, the SHPO, and NS shall work together to develop a list of representative structures on the Enola Branch. Documentation of these structures shall serve to document the historic qualities of the line as a whole.

Upon completion of the documentation and archival research, NS shall consolidate all of the information into one cohesive document and submit the document to the Board's Federal Preservation Officer (FPO) (the Chief of SEA), the ACHP, and the SHPO for review.

Should it be determined that any of the historic bridges must be dismantled, NS shall consult with the FPO, SHPO, and the consulting parties regarding the potential for any re-use of the historic materials for commemoration of the Enola Branch Rail Line.

As provided in Pennsylvania state standards, the document to be prepared by NS shall include:

A. A Photo/Site Plan Sheet containing: (1) the historic name of the property; (2) the county; (3) noncolor-coded sketch maps or other noncolor maps showing the location of the rail line; and (4) photographs of the representative structures;

B. A Data Sheet describing: (1) the rail line, its historic function and current use, (2) the representative structures, including relevant historical and descriptive information such as the architectural and structural system classifications, the exterior materials, the width, depth, and height measurements, dates of construction and known significant changes or rebuilding, (3) the proposed disposition of the structures after abandonment, and (4) to the extent there is relevant information in railroad or local libraries, museums or archives, the cultural affiliations, associated individuals or events, and names of builders or craftsmen who constructed the rail line;

C. A Narrative Sheet, including a brief physical description of the line (current and historic physical appearances and conditions of the rail line segments and all associated structures) and a historical narrative (a summary of the history and significance of the property);

In addition to the requirements of the Pennsylvania state recordation standards, the document shall also include:

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[6]Archival research conducted from information or records supplied by or available at the railroad, the Pennsylvania Historical and Museum Commission, the Pennsylvania State Archives, the Lancaster County Historical Society, the Southern Lancaster Historical Society, the Chester County Historical Society, the Railroad Museum of Pennsylvania, and the Pennsylvania Railroad Technical and Historical Society (as available) shall satisfy this requirement.

1. A written report describing the methods and results of the archival research; and

2. Copies of any relevant historical documents found pursuant to the archival research, as well as available maps of the rail line in its local context.

The Board's FPO, the ACHP, and the SHPO shall have 30 days to review and comment on the draft document. At the end of the 30 day period, NS shall prepare a final version of the document, taking into consideration any comments received, and submit the final document to the FPO, the ACHP, and the SHPO. NS shall also submit two (2) additional copies of the final document to the SHPO to be archived at the SHPO's office.

II. DISPUTE RESOLUTION

Disagreements over implementation of this Memorandum of Agreement shall be resolved in the following manner:

A. If the SHPO or NS objects in writing to the Board's FPO regarding any action carried out or proposed in implementation of this Memorandum of Agreement, the FPO shall consult with the objecting party to resolve this objection. If after such consultation there is no resolution, then the FPO shall forward all documentation of the objection and attempted resolution to the ACHP, including the FPO's proposed response to the objection. Within 45 days of receipt of this pertinent documentation, the ACHP shall exercise one of the following options:

1. Provide the Board with a staff-level recommendation; or

2. Notify the Board that the objection will be referred for formal comment pursuant to 36 CFR Part 800, and complete the referral.

B. The Board shall take into account any ACHP comments or recommendations in reaching a final decision regarding the objection. The Board's responsibilities related to all undisputed actions under the Memorandum of Agreement shall remain unchanged.

III. POST REVIEW DISCOVERY

If the professional historian retained by NS identifies a potential for unanticipated effects on historic properties, as defined in 800.16(l)(1), during the implementation of this Memorandum of Agreement, NS shall notify the Board's FPO. The FPO shall then consult with the SHPO to determine whether additional mitigation measures are necessary, and if so, all signatories shall consult to devise appropriate mitigation measures and amend the Memorandum of Agreement, pursuant to Part IV of this Memorandum of Agreement.

If one or more archeological sites, additional cultural or historic resources, or human remains are discovered during NS's salvage activities, NS shall immediately cease all work and notify the FPO and any Federally recognized tribe that might attach religious or

cultural significance to the site. The FPO shall consult with the SHPO and any such tribe to determine whether additional mitigation measures are necessary, and if so, all signatories shall consult to devise appropriate mitigation measures and amend the Memorandum of Agreement, pursuant to Part IV of this Memorandum of Agreement.

Any additional mitigation developed shall be consistent with the provisions of the Pennsylvania Historic and Museum Commission's Policy on the Treatment of Human Remains adopted March 10, 1993, the Native American Graves Protection and Repatriation Act, and ACHP guidance documents such as the ACHP's Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites.

IV. AMENDMENT

Any Signatory to this Memorandum of Agreement may request that it be amended, whereupon the parties shall consult to consider the proposed amendment pursuant to 36 CFR Part 800.

V. TERMINATION

A. If the terms of this Memorandum of Agreement have not been implemented within one year of its execution, it shall be considered null and void, unless the parties agree to a written extension of time. In that event, the Board shall notify the parties to this Memorandum of Agreement, and if NS chooses to continue with this undertaking, the Board shall reinitiate review of this undertaking in accordance with 36 CFR Part 800.

B. Any signatory to the Memorandum of Agreement may terminate it by providing thirty (30) days notice to the other parties, provided that the parties shall consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, the Board shall comply with 36 CFR Part 800.

VI. SCOPE OF AGREEMENT

This Memorandum of Agreement is limited in scope to the abandonment of the sections of the Enola Branch from Milepost 0.0 to 1.5 and Milepost 4.0 to 33.9, and is entered into solely for that purpose. Execution and implementation of this Memorandum of Agreement by the Board, the ACHP, the SHPO, and NS is evidence that the Board has afforded the ACHP an opportunity to comment on the project and its effects on historic properties, has taken into account the effects of the undertaking on those properties, and has, therefore, satisfied its Section 106 responsibilities for this undertaking.

SIGNATORIES:

Advisory Council on Historic Preservation 8/9/07

State Historic Preservation Officer 7-12-2007
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Surface Transportation Board

Norfolk Southern Railway Company

CONCURRING PARTIES:

Friends of the Atglen-Susquehanna Trail

Historic Preservation Trust of Lancaster County

Lancaster County

Lancaster County Conservancy

Lancaster Farmland Trust

Northeast Regional Field Office of the Rails-to-Trails Conservancy

Pennsylvania Department of Transportation

Quarryville Borough

Southern End Community Association

Township of Bart

Township of Conestoga

Township of Eden

Township of Martic

Township of Providence

Township of Sadsbury

Township of West Sadsbury

SIGNATORIES:

Advisory Council on Historic Preservation

State Historic Preservation Officer
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Victoria Rutson 7-31-07
Surface Transportation Board by: Victoria Rutson

Norfolk Southern Railway Company
by: John H. Friedmann

CONCURRING PARTIES:

Friends of the Atglen-Susquehanna Trail

Historic Preservation Trust of Lancaster County

Lancaster County

Lancaster County Conservancy

Lancaster Farmland Trust

Township of Eden

Frank H. Peiffer

Township of Martic

Attest: Judy M
Martic Township
6/11/07

Township of Providence

Township of Sadsbury

Township of West Sadsbury

Northeast Regional Field Office of the Rails-to-Trails Conservancy

____

Pennsylvania Department of Transportation

____

Quarryville Borough

____

Southern End Community Association

____

Township of Bart

____

Township of Conestoga

Pennsylvania Railroad, Atglen and Susquehanna Branch, Enola Low Grade Project
Chester and Lancaster Counties

Bridges on the NR eligible line worthy of recordation as per the PMOA:

*1. 4.03 Noble Road/Octoraro Creek, #1, Sadsbury Twp., Lancaster County
2. 4.70 Orchard Bridge Road, @3, West Sadsbury Twp., Lancaster County:
Recordation completed by PDOT
*3. 7.61 Vintage Road, #6, Bart Twp., Lancaster County
4. 8.78 Lamparter Road: Recordation completed by PDOT
5. 11.68 Pumping Station Road, #10, Eden Twp., Lancaster County:
Recordation completed by Conrail
*6. 13.83 Church Street, #14, Providence Twp., Lancaster County
7. 14.46 Oak Bottom Road, #15: Recordation Completed by Conrail
8. 14.62 U.S. Route 222, #16: Recordation Completed by Conrail
9. 15.00 Fairview Church Road, #17, Providence Twp., Lancaster County:
Recordation Completed by PDOT
10. 18.08 Hollow Road, #21, Providence Twp., Lancaster County:
Recordation Completed by Conrail
*11. 19.48 Route 272 North, #23, Providence Twp., Lancaster County
*12. 19.61 Route 272 South, #24, Providence Twp., Lancaster County
*13. 23.04 Marticville Road, Route 324, #27, Martic Twp., Lancaster County
*14. 23.75 River Road (Martic Forge), #28, Martic/Conestoga Twp., Lancaster County
*15. 25.73 Shenk's Ferry Road, #31, Conestoga Twp., Lancaster County
*16. Boatman Run, Conestoga Twp., Lancaster County
*17. Gardners Run, Conestoga Twp., Lancaster County

- Recordation still needed

APPENDIX B

PROJECT STAFF RESUMES

Pennsylvania Department of Transportation
Consultant Qualifications Package
Resumes

Please include a brief resume of key persons within your firm: *(Note: Please use the "copy and paste" capabilities of your word processing program to duplicate this template for each resume included with the submission)*

Resume # 02

Name **Susan E. Peters** **Title** Pennsylvania Region Manager

Primary Responsibilities

Ms. Peters directs project schedules, budgets, and personnel for ASC's Pennsylvania Region. She assigns staff to projects and establishes job responsibilities; establishes priority of tasks and jobs; conducts quality assurance/quality control review of field methods and reports; coordinates with clients and regulatory agencies, and serves as overall project manager.

Years Experience: **With This Firm** 5 **With Other Firms** 11

Education

Institution	Degree(s)	Year	Specialization
Penn State University	**M.A.**	**2007**	**American Studies**
Dickinson College	**B.A.**	**1968**	**History of Fine Arts**
Boston University			**History of Fine Arts**

Active Registration

Year first registered

Disciplines

Other Experience and Qualifications

Ms. Peters has more than 16 years of experience in Cultural and natural resource management. Currently Manager of the Pennsylvania Region for ASC, Ms. Peters offers an extensive knowledge of practical and legal environmental, preservation, and planning issues. For seven years, she served as a Qualified Professional with PennDOT Central Office with responsibility under the PennDOT Programmatic Agreement for Minor Transportation Projects for Section 106 compliance and served as a lead liaison between state and federal agencies and the public sector and has been active in policy development for state and federal guidelines. As Environmental Manager for a previous firm, she has managed projects (Environmental and Cultural Resources) and contributed to numerous NEPA compliance documents including Environmental Impact Statements (EISs) and Environmental Assessments (EAs), as well as Section 4 (f) evaluations. Ms. Peters has conducted dollar value tracking of projects from inception to completion for cost analysis. She has researched and developed environmental documents, including major Environmental Impact Statements; conducted cultural resources and socioeconomic studies; performed historic resources field surveys and inventories; conducted background research, including photo documentation, deed research and context preparation and analysis; assisted in the development and preparation of proposals, and conducted feasibility studies. She has prepared Pennsylvania Historic Resource Survey forms and National Register nominations; she has a working knowledge of the content and preparation of HABS/HAER reports. She is trained in computer-assisted search and research techniques and services. She functioned as the managing historic structures specialist for the Local Historic Bridge Survey in Pennsylvania and managed and coordinated the National Park Service/Historic American Engineering Record Initiative for historic Pennsylvania bridges. As Manager of the Pennsylvania Region for ASC, she is responsible for overseeing the Pennsylvania Region offices, managing project coordination, directing proposal preparation and marketing.

Pennsylvania Department of Transportation
Consultant Qualifications Package
Resumes

Please include a brief resume of key persons within your firm: *(Note: Please use the "copy and paste" capabilities of your word processing program to duplicate this template for each resume included with the submission)*

Resume # 03

Name **Susan M. Cabot** **Title** Architectural Historian

Primary Responsibilities

Develops and implements the research design and survey methods for architectural projects, oversees the field survey, compiles and synthesizes data, prepares the technical reports, prepares supporting report documentation, and coordinates with the project manager.

Years Experience: **With This Firm** 2 **With Other Firms** 15

Education

Institution	Degree(s)	Year	Specialization
University of So. Carolina	B.A.	1973	American History
Middle Tenn. State University	M.A.	1995	Historic Preservation/History

Active Registration

Year first registered

Disciplines

Other Experience and Qualifications

Ms. Cabot has more than sixteen years of experience in the fields of architectural history and historic preservation with particular interest in vernacular architecture, agricultural landscapes, historic cemeteries and heritage education. Her varied experience includes serving as a *County Historic Preservation Planner* in Kentucky where she frequently collaborated with consultants and the SHPO on Section 106 projects and as a *Historic Preservation Specialist* with the Pennsylvania State Historic Preservation Office with primary responsibilities involving the Certified Local Government program and preservation planning. Ms. Cabot also served as the *Deputy Director* of Preservation Pennsylvania, the statewide non-profit. She has conducted the research and field surveys for Section 106 review projects and completed state inventory forms for projects in Kentucky, Tennessee and Pennsylvania. Section 106 review projects have included surveys, NRHP eligibility assessments, adverse effects assessments, and boundary delineations.

Pennsylvania Department of Transportation
Consultant Qualifications Package
Resumes

Resume # 04

Name Michael A. Stanilla **Title** Principal Investigator/ Supervising Archaeologist

Primary Responsibilities:

Principal Investigator for Pennsylvania Region. Proposal preparation, report writing and editing, supervise and conduct archaeological fieldwork, and project administration.

Years Experience: **With This Firm** 2 **With Other Firms** 15

Education

Institution	Degree(s)	Year	Specialization
Pennsylvania State University	M.A.	2005	American Studies
Pennsylvania State University	B.A.	1994	Archaeology

Active Registration:

Year first registered

Disciplines

Other Experience and Qualifications

Mr. Stanilla is skilled at archaeological fieldwork and has extensive experience in prehistoric and historic archaeology of the Midwest and Eastern United States. He has 10 years of supervisory experience in archaeology (principal investigator and field director). He has 16 years of fieldwork experience in all aspects of prehistoric archaeological survey, testing, excavation and mapping, including projects in Maryland, Pennsylvania, New York, Ohio and West Virginia. Additional experience includes mapping with transits/EDM, GPS surveys, excavation and artifact photography. He is knowledgeable about cultural resource laws and practice including the Section 106 process. He has conducted project specific Tribal Consultation as well as administered Tribal Consultation policy for a transportation agency. Mr. Stanilla has conducted archaeological monitoring, shovel testing, controlled surface collection, test pit excavation, mapping, mechanical stripping and feature excavation, hand and machine assisted deep testing, and assisted in geomorphological and geoarchaeological investigations. He has historic archaeology experience including survey and identification (including course work in historic preservation). He has previously worked on projects for gas and coal companies, the USDA Forest Service, municipalities, transportation agencies, and private developments. Mr. Stanilla has authored and co-authored technical reports and is experienced in historic, architectural, and archaeological documentary research and site file searches. His laboratory skills include ceramic analysis, soil sample flotation, analyses of prehistoric and historic artifacts, and artifact curation.

Pennsylvania Department of Transportation
Consultant Qualifications Package
Resumes

Please include a brief resume of key persons within your firm: *(Note: Please use the "copy and paste" capabilities of your word processing program to duplicate this template for each resume included with the submission)*

Resume # 07

Name **Constance S. Walsh** **Title** Architectural Historian

Primary Responsibilities

Ms. Walsh conducts archival research, field work, photo documentation, and written narratives to document historic properties for transportation projects and National Register of Historic Places Nominations.

Years Experience: **With This Firm** **1** **With Other Firms** **2**

Education

Institution	Degree(s)	Year	Specialization
Pennsylvania State University	**B.A.**	**1980**	**Counselor Education**
Bucks County Community College	**Certificate**	**2005**	**Historic Preservation**
University of Delaware	**M.A.**	**2007**	**Historic Preservation**

Active Registration

Year first registered

Disciplines

Other Experience and Qualifications

Ms. Walsh posses a solid knowledge of architectural and cultural history with specific interest in historic preservation. Her experience includes serving as part of the *Mid-Atlantic Historic Buildings and Landscape Survey Team* for the *Center of Historic Preservation and Design* at the University of Delaware. Her responsibilities included performing archival research, filed work, resource photography, and preparation of oral histories and historic narratives to document historic properties and landscapes for National Register of Historic Places Nominations.

APPENDIX C

"THE ATGLEN AND SUSQUEHANNA:

LANCASTER COUNTY'S LOW GRADE"

BY

FREDERIC ABENDSCHEIN

THE
Keystone
Volume 27, Number 4 Winter 1994

The Official Publication of the Pennsylvania Railroad Technical and Historical Society

THE ATGLEN & SUSQUEHANNA: LANCASTER COUNTY'S LOW GRADE
100 YEARS AGO ON THE PENNSYLVANIA RAILROAD SYSTEM — 1894
THE PANHANDLE DIVISION: BRANCH LINES, PART III

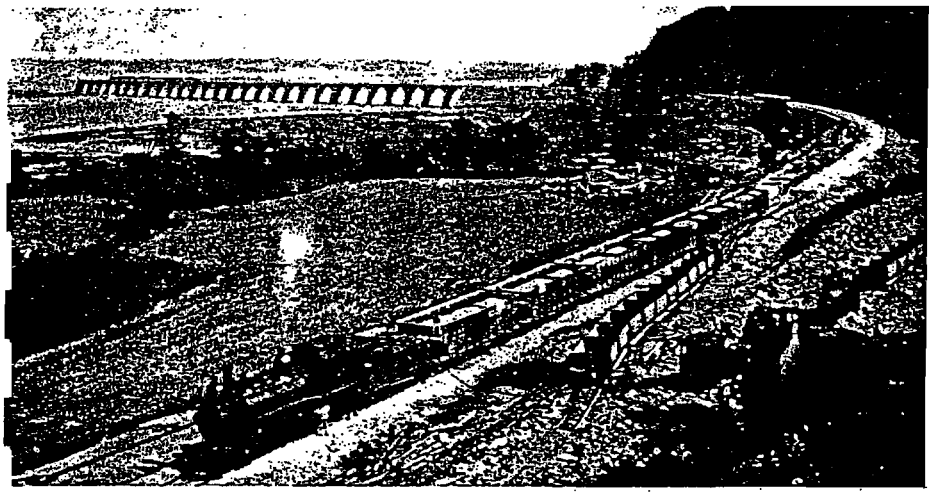
THE ATGLEN & SUSQUEHANNA:

BY FREDERIC H. ABENDSCHEIN

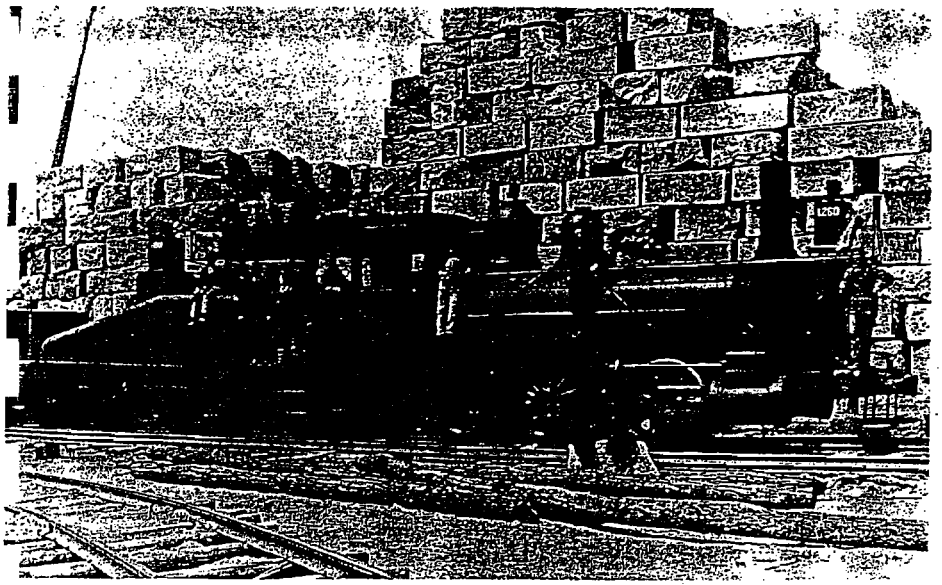
By the beginning of the twentieth century, the Pennsylvania Railroad's territory, traffic levels and income had grown substantially since the company's founding. The traffic was putting severe strains on the system and the railroad would have to invest considerable amounts of capital for relief in strategic areas.

Lancaster County, Pennsylvania, was one such critical region. PRR trains headed east from Harrisburg had two routes through the western part of Lancaster County. The first, the Columbia Branch, followed the Susquehanna River to its namesake town, where it left the river and climbed a steep grade to Mountville and continued on to Lancaster. There the Branch joined the other route, the main line, which, on its way to Lancaster, had climbed almost 200 feet in about seven miles from the Swatara Creek to a point near Elizabethtown. These grades limited train size or required the railroad to add costly helper engines.

Problems existed east of Lancaster, too. Both the main line west of Lancaster and the Columbia Branch had two tracks and the main line had four east of Lancaster. However, the Conestoga River bridge was only two tracks wide. When the railroad built the bridge it left protruding stones on the south side to mesh with a possible, but never pursued, expansion. At Gap the railroad had a 0.6% grade, compounded by sharp, speed-restricting curves. These and other problems led PRR President Alexander J. Cassatt to the solution of "an essentially new double-tracked railroad for freight only, from a connection with the main line and the Northern Central near Harrisburg on east to Philadelphia."



The new PRR bridge crossing the Susquehanna River at Shocks Mills, Pa., on the new low grade line. Postcard view showing a Pennsy construction train headed by a Consolidation, on the York County (west bank of river) side. Note the narrow-gauge locomotive and cars to the right. At the upper right, a short, curved, arched span bridges the Codorus Creek. Postcard view, from an L. B. Herr print. *(James J. D. Lynch, Jr. collection)*



RR class M(B3) 0-6-0 #1260 construction locomotive pauses in front of a pile of quarried stones destined for the Shocks Mill Bridge. *(author's collection)*

This solution was not a new one, as an earlier PRR president, J. Edgar Thomson, had a vision of a low-grade route stretching from the eastern seaboard to the midwest; the eastern Pennsylvania line would have been part of this bigger scheme.

Keeping such an extensive enterprise concealed was impossible. By late 1902 a report in the *Lancaster Inquirer* described the route as following the west shore of the Susquehanna from the new yards at Fairview (Enola Yard) to a new bridge at Shocks Mill, continuing along the east shore to Creswell, where it would start an easy grade to cross southern Lancaster County. The newspaper projected that contractor H. S. Kerbaugh would soon start work near York Haven on the west shore in York County and Shocks Mill in Lancaster County and would employ 1,000 men and 150 horses.

In southern Lancaster County the line would cross, from east to west, Sadsbury, Bart, Eden, Providence, Martic and Conestoga Townships. Work would start at Quarryville and proceed east and west from there. To secure the route, right-of-way men started visiting local farmers early in 1903 to obtain releases. Naturally, some resisted, but the PRR ultimately prevailed.

ANCASTER COUNTY'S LOW GRADE

Some credit (or blame, depending on your point of view) for the route has to go to the PRR's Chief Engineer, William H. Brown. Born in southern Lancaster County, Brown got his start by running trial surveys on the narrow-gauge Lancaster, Oxford and Southern, near his home. After working on the U.S. military railroads at the start of the Civil War, he moved on to the PRR, staying there 44 years, 36 of them as Chief. He worked on many large PRR projects and often encountered the railroad counsel, who would warn him not to do some act because of its questionable legality. He would reply, "But I have done it." Consequently, he became known as "the Supreme Court of The Pennsylvania Railroad Company."

Rockville Bridge, completed in 902, is the best-known of Brown's rojects. The low-grade line across Lancaster County was Brown's last sk, as he reached the PRR's manda- ory retirement age of 70 in 1906, before the line's completion.

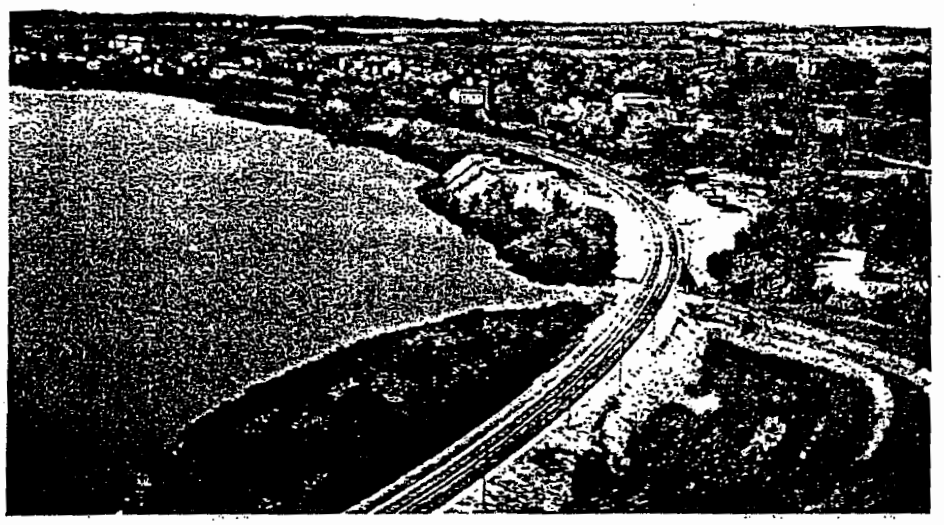
One of the first places work started as on Shocks Mill Bridge, which ould cross the Susquehanna River. Work began on Dec. 3, 1902 and by ay 1903 workers were building out one pier a week. (They started the first abutment on March 16, 1903 nd the first pier on April 26, 1903.) e quickest pier went up in five ays, three hours. When H. S. Kerbaugh Co. completed the bridge in t autumn of 1904 it had 27 piers a 128 arches. The bridge was 2,221 feet long, with the top of the coping 6 feet above low water and the keyst nes 54 feet above the same mark. Sixty thousand cubic yards of masonry went into the bridge. Into the vale over the piers went sandy loam on the Lancaster County side and stone ballast on the York County side. Fi t estimates called for two years to c plete building the bridge. However, Kerbaugh finished about three months sooner, impressive considering the company had to suspend work for 121 days during the summer of 1903 because of high water. Construction was not without its human cost; there were injuries from premature explosions and at least one drowning.

Also, during 1903's summer a potential legal problem surfaced. In July four rafts loaded with lumber came down the Susquehanna and collided with a coffer dam around one of the bridge piers. The rafts had their lumber loads smashed, but crewman thrown overboard made it safely to Wrightsville. The raftmen wanted the Commonwealth of Pennsylvania to intervene and make the railroad remove one pier to form a safe passageway through the area. However, with William H. Brown, "the Supreme Court of the PRR," in charge, guess who won.

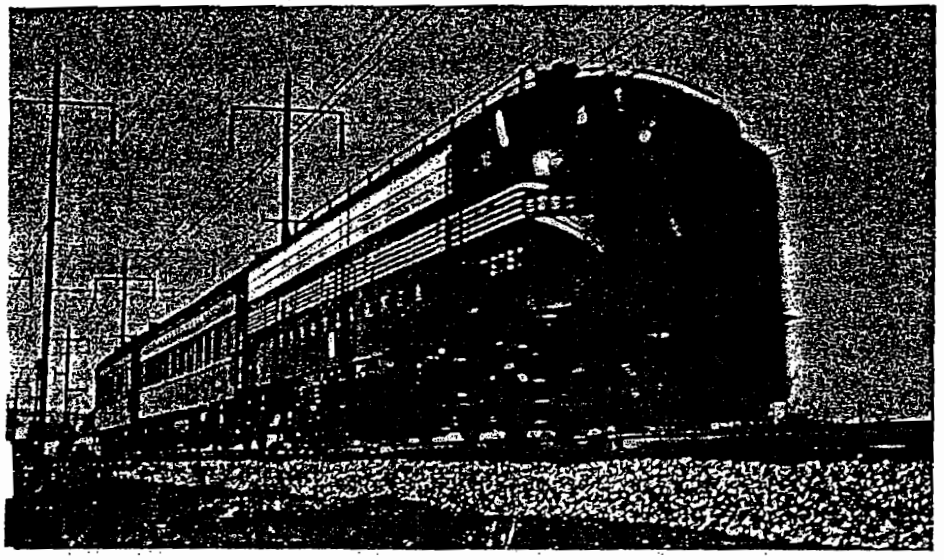
Close by, on the York County side, Kerbaugh built another, smaller bridge over the Codorus Creek. Workers began the bridge in the autumn of 1903 and finished it in the spring of 1904. The bridge, which consumed 12,000 cubic yards of ma-

A crowd gathers in the "Big Cut", east of Quarryville on July 27, 1906 for the A&S's Silver Spike Ceremony. George W. Hensel, Jr., a Quarryville merchant (in the center, wearing a white shirt), drove the last spike and Anna Acheson, (to the left, wearing a white blouse), daughter of an assistant construction supervisor, dedicated the line.
(Lancaster New Era *newspaper)*

n 0-6-0 construction locomotive, owned y S. Kerbaugh, and crew.
om King collection)



By following a tangent between two hills, the A&S cut off part of the Susquehanna River, forming Kerbaugh Lake. Flooding in 1936 cut off the line near both shores, creating an island of what remained. To prevent a reoccurence, the PRR, after WWII, filled in the lake with dirt and rubbish, much of which came from Altoona. The Columbia Branch followed the base of the hills until the railroad abandoned it. *(Railroad Museum of Pennsylvania collection)*



◀ *PRR inspection train, west of Quarryville, A&S Branch. November 1952.*
(Walter F. Minnich, Jr. photo)

◀ *This view, from a postcard, is looking from Chickies Rock towards Marietta. The A&S curves through slag piles, whose centers went for fill on the Shocks Mill bridge approaches.* *(author's collection)*

sonry, had six arches, with the keystones 43'-6" and the bridge top 50'-6" above low water. Both the Codorus and Shocks Mill Bridges were similar in appearance to the much better known and more easily accessed Rockville Bridge.

To build the line in York County, the PRR faced legal problems, besides physical ones; the railroad's charter did not allow it to build in York County. To overcome this, the company established a railroad, the York Haven and Rowenna Railroad Company, to run between its namesake towns and the railroad lines of subsidiary Northern Central and the Columbia Branch. After the construction crews finished the six miles of railroad, the PRR rolled it and its $100,000 in stock securities into the PRR system by buying it on Dec. 27, 1905.

Near York Haven, at Wago Junction, the line connected with the Northern Central, on whose tracks (newly expanded from two to four) trains ran the rest of the way to Enola Yard. The PRR and three subsidiaries (Northern Central, Cumberland Valley and Philadelphia & Erie) each chipped in one quarter of Enola's estimated cost of $7,000,000. Contractors finished the yard and it went into operation in 1905. When service started, Enola's initial storage capacity was reportedly 20,000 cars, but its final capacity was to be over 50,000.

On the Lancaster County side, Kerbaugh faced a considerable physical challenge. The contractor had to build a bridge approach more than a mile long. The approach was a fill that grew to 36 feet in height at the bridge and was uniformly 40 feet wide. To supply fill material, Kerbaugh turned to the Vesta iron furnace's cinder banks a few miles downstream at Marietta. The contractor used a temporary narrow-gauge rail-

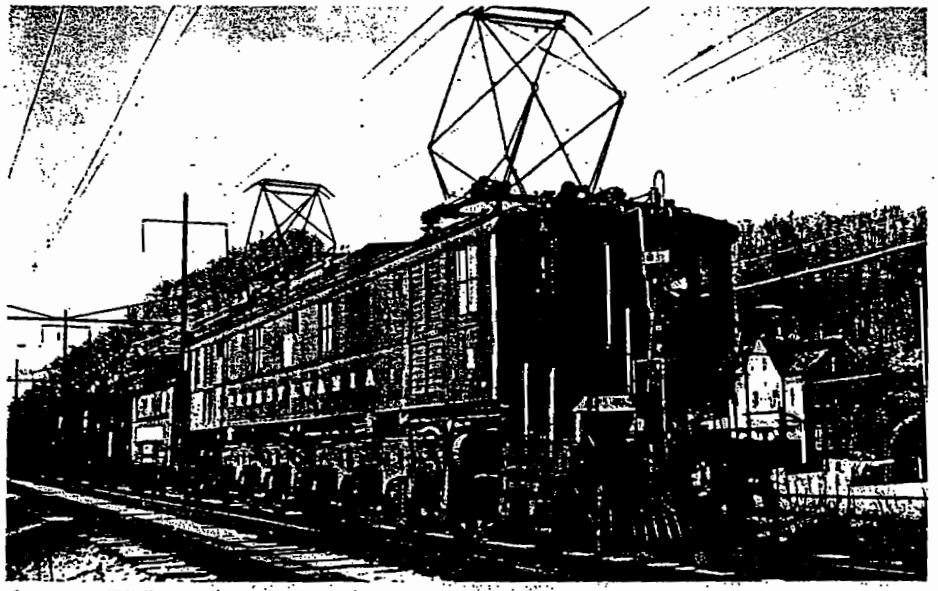
A half-dozen steam-powered drills chip away at a hillside along the Susquehanna between Turkey Hill and Shenks Ferry, where the A&S would swing away from the river. *(Tom King collection)*

oad to move the cinders from the urnace site to where crews were building the approach. While Shocks Mill Bridge catches the eye, the pproaches' cost was $600,000, $200,000 more than the bridge itself.

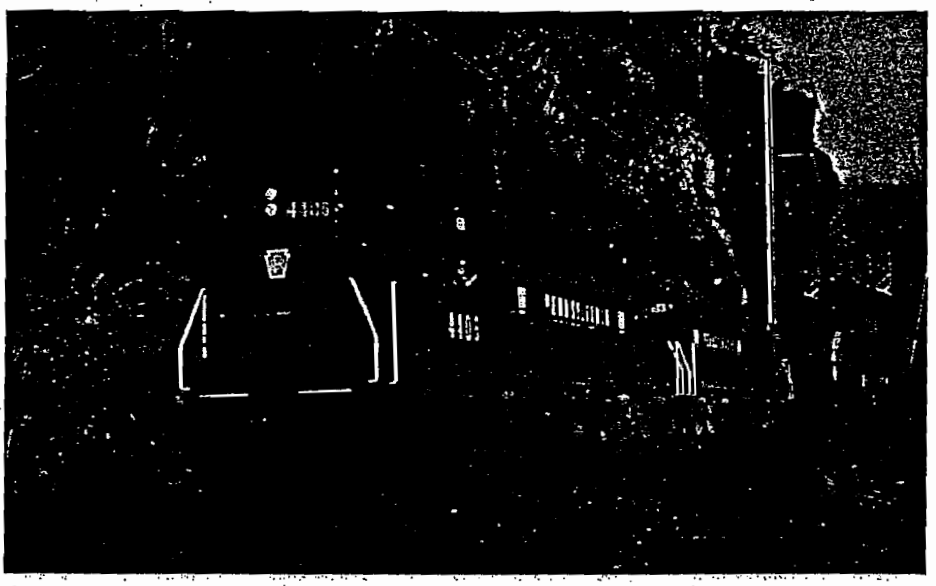
While Kerbaugh was tackling hocks Mills Bridge in 1903, other construction companies were busy in southern Lancaster County. Ryan & elley had their headquarters at ctrohm's Mill, while Sims & Company's base was at Safe Harbor. John ields Company and McManus ompany headed in opposite directions out of Quarryville. Together these companies had over 3,000 men orking.

Steam shovels could not make fast enough progress in the rocky terrain a ound Safe Harbor. To speed up work, Contractor Sims wanted to use explosives that, unfortunately, had the potential to rain rocks on the Port Road's tracks below. On June 20, 1903, the PRR closed the Port Road between Creswell and Safe Harbor as a safety precaution. Turnaround trains continued to use the Port Road south from Columbia to Creswell and north from Perryville, Md. to Safe Harbor. Still, the railroad had to temporarily transfer five freight crews from Columbia to Baltimore.

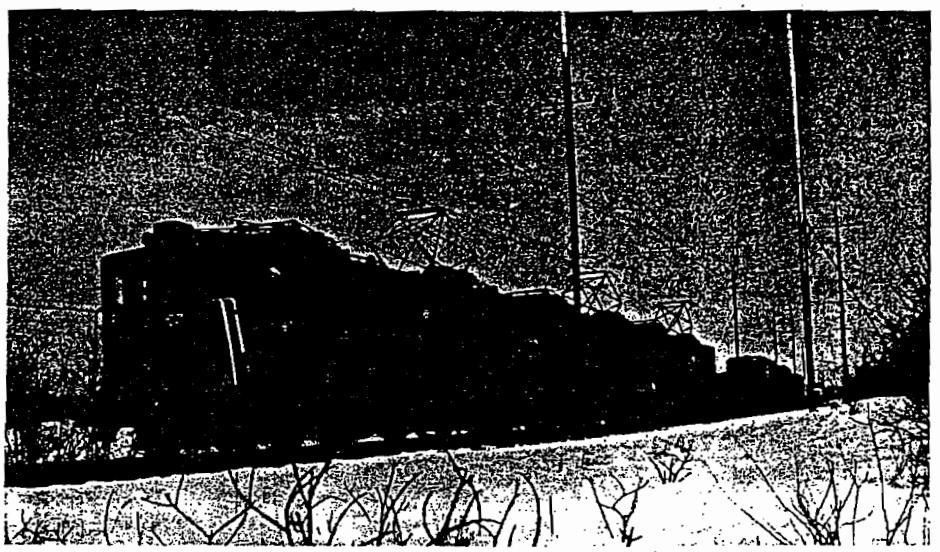
In the autumn of 1903, the PRR



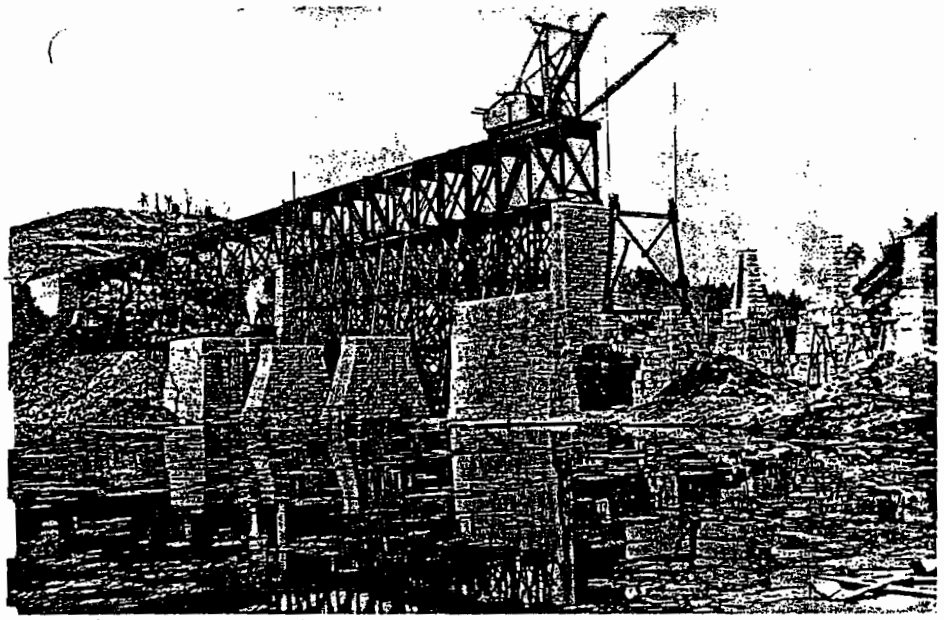
Snapper FF2 #1 on the A&S Branch. January 25, 1958. *(James Shuman photo)*



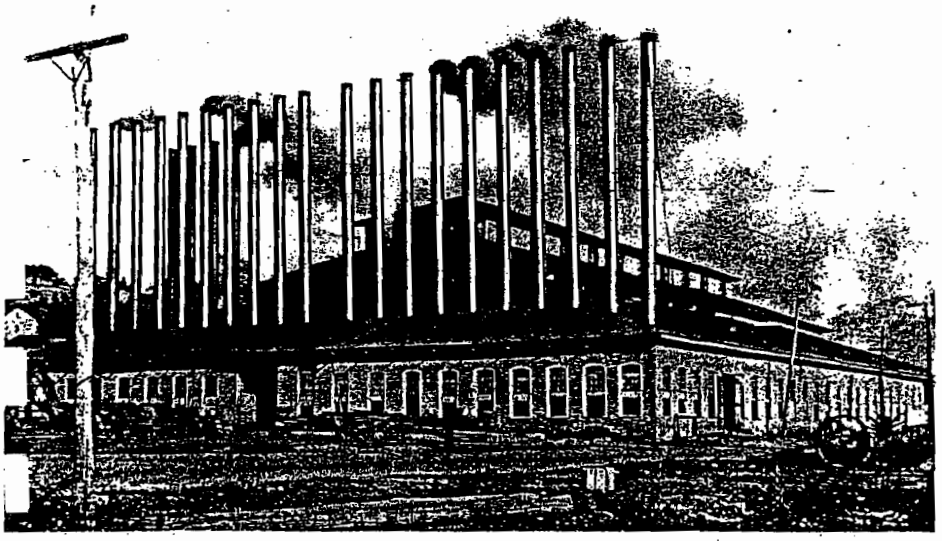
E44 motors #4406 and 4413, skirting a rocky hillside west of Safe Harbor, Pa., with a westbound ore train. April 1962. *(Walter F. Minnich, Jr. photo)*



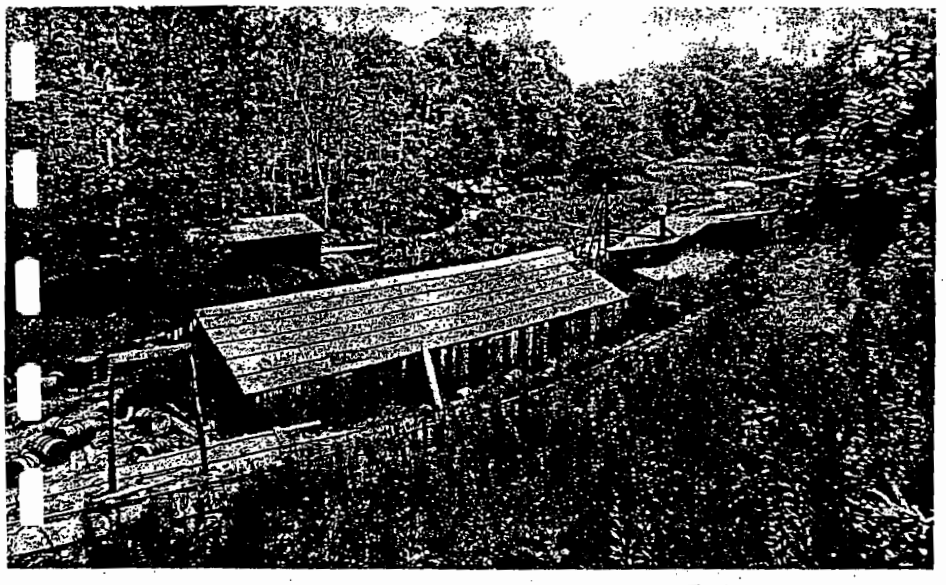
P5a motors #4741, 4711 and 4742 and freight consist, near Quarryville, Pa., February 1964. *(Walter F. Minnich, Jr. photo)*

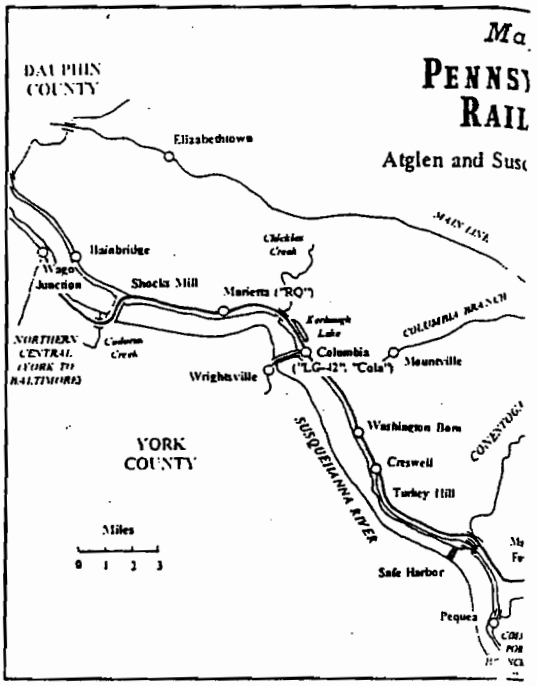


A crane lowers another section into position on the A&S bridge spanning the Conestoga River where it empties into the Susquehanna at Safe Harbor. (Tom King collection)



To supply compressed air for tools, the local contractor turned the abandoned Safe Harbor rolling mill into a powerhouse. Under each of these 20 stacks was one boiler, each supplying steam to operate an air compressor. (Tom King collection)

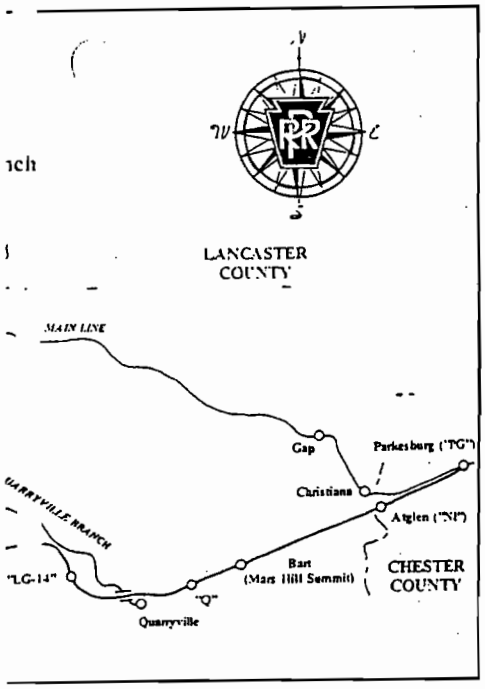




stopped work on the Low Grade. One explanation was that the delay in completing Shocks Mill Bridge prevented the line from being useful to the railroad in 1903, so the company decided to wait until 1904 to continue work. Another explanation was that a Chester County judge ruled that the PRR had no authority to build and had to stop. With William H. Brown, "the Supreme Court of the PRR," in charge, guess who won.

1904 did not open auspiciously. In March ice broke up on the Susquehanna and created jams throughout its length in western Lancaster County. The PRR and Kerbaugh pulled men off the Low Grade construction and put 3,000 to work opening the line between Columbia and Harrisburg. Along with six steam shovels, they attacked the ice (30 feet deep in spots) that covered the railroad. The PRR brought in incredible amounts of food to feed the workers around Bainbridge: 2,250 loaves of bread, 30 hams, two beeves, six hogs, 250 lbs. of coffee, an equal amount of sugar and 30 gallons of milk *per day*, for about nine days. The ice also damaged the Shocks Mill Bridge, requiring later repairs.

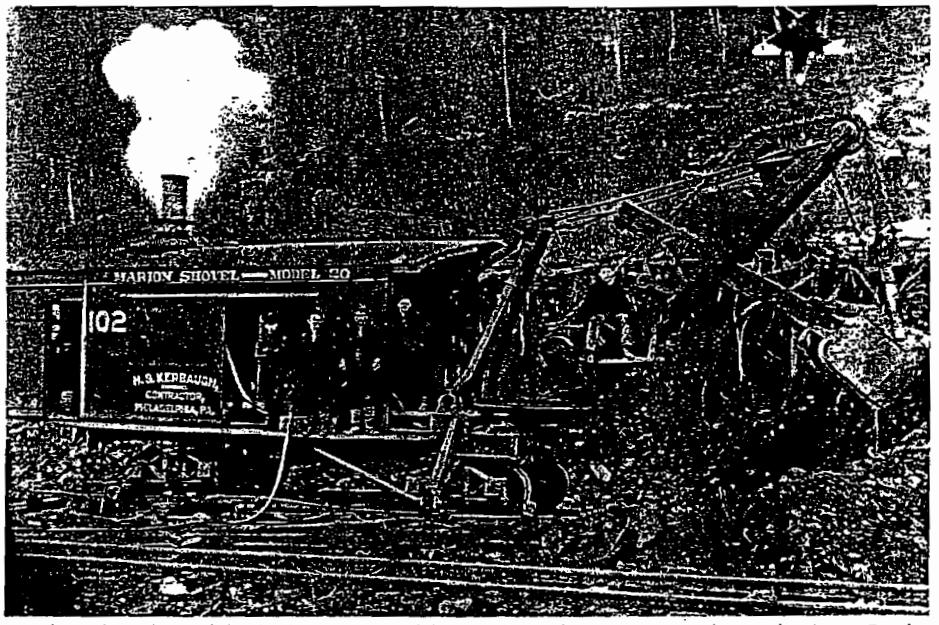
◀ This was a typical dynamite manufacturing facility along the A&S. If an explosion occured, fatalities and damage would be minimized because of the isolated locations. (Tom King collection)



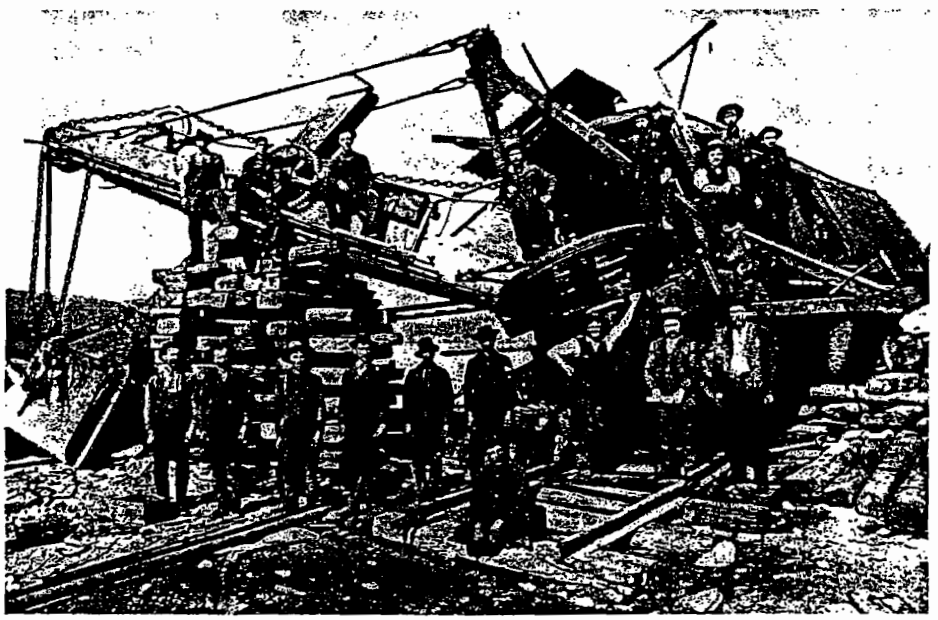
1904 also saw the start of preparatory work for an even larger project that would capture not only Lancaster Countians' imaginations, as the Low Grade had, but that of all Americans - the Panama Canal. The Canal would end up taking almost three times as long and cost about 19 times as much as the A&S.

1905 did not start any better. On January 5, 1905, steam pipes used to keep Sims & Co. dynamite dry in Christiana overheated and caused an explosion that destroyed the storage building. The 40 cases (one ton) of dynamite exploding reportedly damaged every house in town and caused an estimated $25,000 to $30,000 in property damage. The explosive force leveled a commercial greenhouse and lifted lathes and drills off their foundations at the Christiana Machine Company.

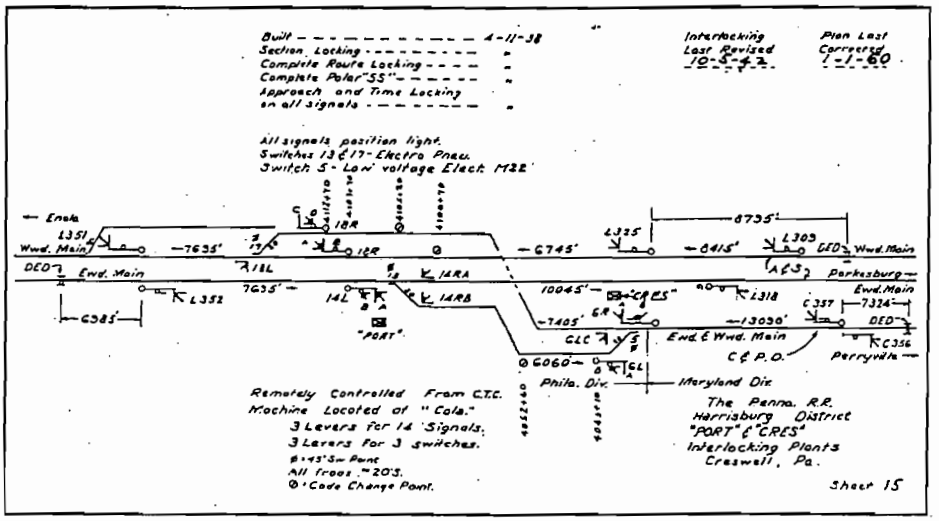
On February 10, 1905, a special train, with General Manager William W. Atterbury and Philadelphia Division Superintendent W. B. McCaleb aboard, stopped in Columbia so the entourage on board might examine the Columbia Yard. The two had ventured from Philadelphia in an attempt to break up congestion that had 30,000 cars tied up between Jersey City and Pittsburgh, with the worst bottleneck being the Philadelphia Division. The congestion and resulting inspection trip stressed how

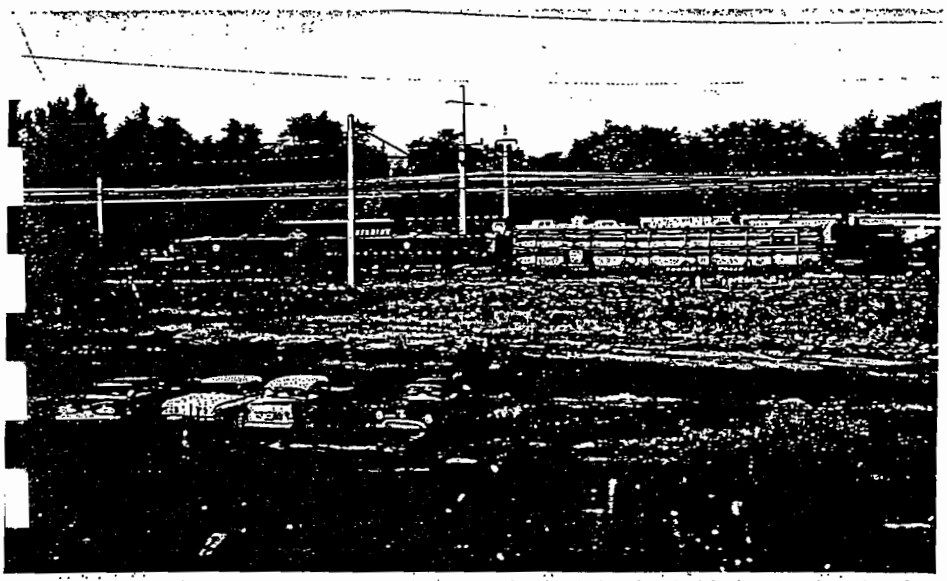


Marion Shovel Model 20, #102, owned by H. S. Kerbaugh, at work on the Low Grade. *(Tom King collection)*



Another steam shovel, being righted after a mishap. *(Tom King collection)*





Heavily damaged P5a motors 4755 and 4722 arrive in Columbia behind a wreck train after a rear-end collision with another freight in August 1962 that left two dead.
(James Shuman photos)

Columbia Tower, A&S Branch, Columbia, Pa. View looking southward, August 1966.
(James J. D. Lynch, Jr. photo)

badly the railroad needed the Low Grade.

Throughout the summer of 1905 work proceeded with an increasing human toll, as minor and major accidents happened regularly. Headlines such as "Peeked Out Pipe, Skull Crushed," "Blown Into Atoms His Awful Fate" and "Three More Killed On Railroad Work" were typical; these all appeared in a span of one week in May.

On July 17, PRR officials (including Atterbury) held a mysterious conference in Columbia on board his private car. The next day, before the train left for a trip down the Port Road, officials refused to talk. Speculation ran rampant, with most centering on the meeting being on the Low Grade. Some thought the PRR might expand its operations in Columbia by building new shops. Others were not as optimistic.

The summer of 1905 saw much blasting, especially along the river between Safe Harbor and Turkey Hill. On July 1 workers started drilling in a headland of rock about one-half mile west of Safe Harbor. Drilling finished a month later and work-

On January 11, 1965, 32 ore cars accordianed themselves in the "Big Cut". Here a Reading Company wrecker, borrowed by the PRR, works on the east end. Notice the worker on top of the catenary pole, placing a light so that work can continue into the night.
(Walter F. Minnich, Jr. photo)

ers started filling the holes with 225 tons of explosives. When the explosion went off (at what became known as Stigerwalts Cut) it dislodged about 240,000 cubic yards of material.

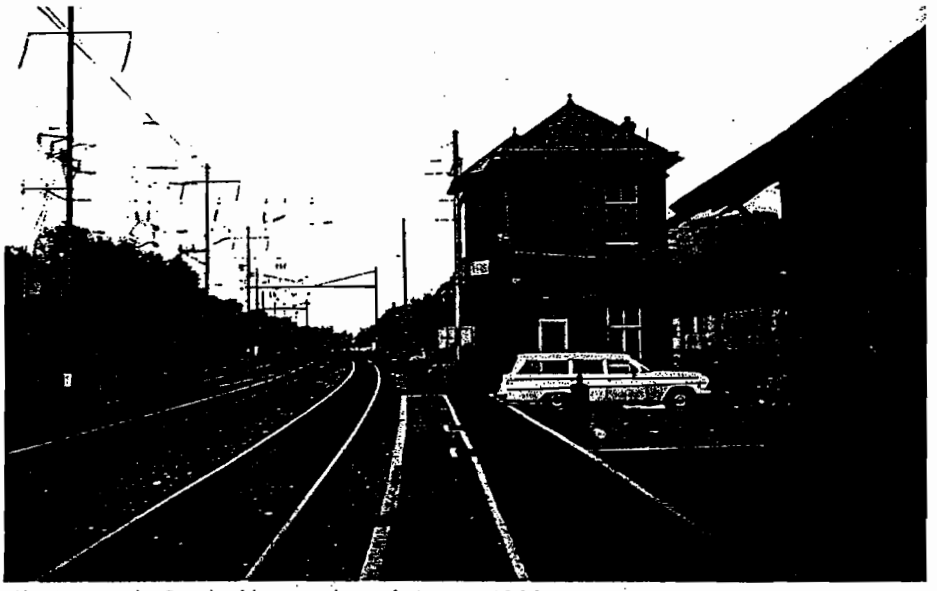
And the accidents continued: "Awful Fate of Six Men," "Four Men Torn to Shreds at Highville" and "Two Men Burned to Death at Safe Harbor." Again, all three accidents happened within a one-week span during late August and early September.

While almost all the Low Grade passed through tranquil townships, the PRR did have to contend with one boisterous borough - contentious Columbia. A special Borough Council meeting on May 6 resulted in a list of demands on the railroad. On August 2 there was a follow-up meeting, in which Council heard the original demands and the recommendations of an Advisory Committee. After much discussion, Council prepared a new list of seven demands that included subway or overhead road crossings, sewer improvements and a second deck for vehicular traffic on the Columbia-Wrightsville bridge.

While Columbia Council was debating, contractors were doing preliminary work in the town. One task was to tear down the railroad's brick warehouse at Walnut Street. The Baltimore and Susquehanna had erected the building as its passenger station in Columbia (for its line that crossed the Susquehanna to Wrightsville).

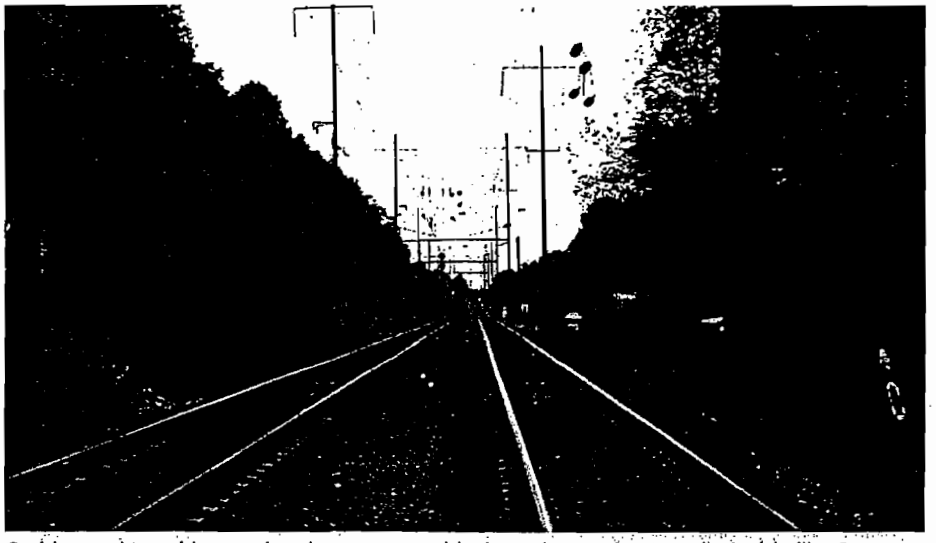
On September 21 the Columbia situation heated up when H. S. Kerbaugh workers started to excavate at the foot of Locust Street. This work prompted a visit from the Borough Council President and Borough Engineer, who then called for the railroad to halt work. The local PRR engineer agreed and temporarily stopped work on the dinkey (construction) tracks. Many unverified rumors circulated, but it appeared that the railroad would wait until contractors had finished more work on either side of the Borough.

In the autumn, workmen started stringing communication and signal wire along the route, starting at Martic Forge and heading east. In the

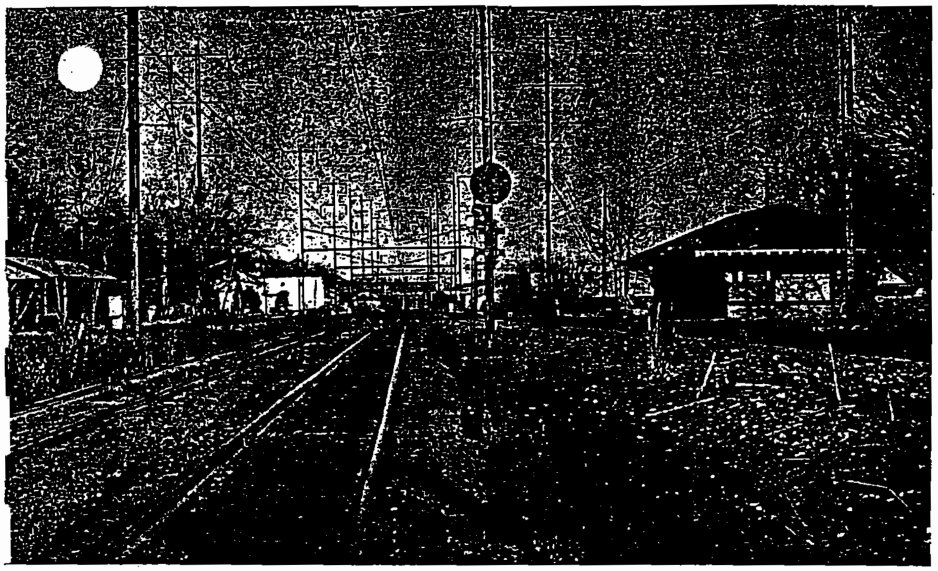


Cly Tower, Cly, Pa., looking southward, August 1966. *(James J. D. Lynch, Jr. photo)*

Cly Tower, south and east elevations. Northward is to the right. May 31, 1976.
(James J. D. Lynch, Jr. photo)

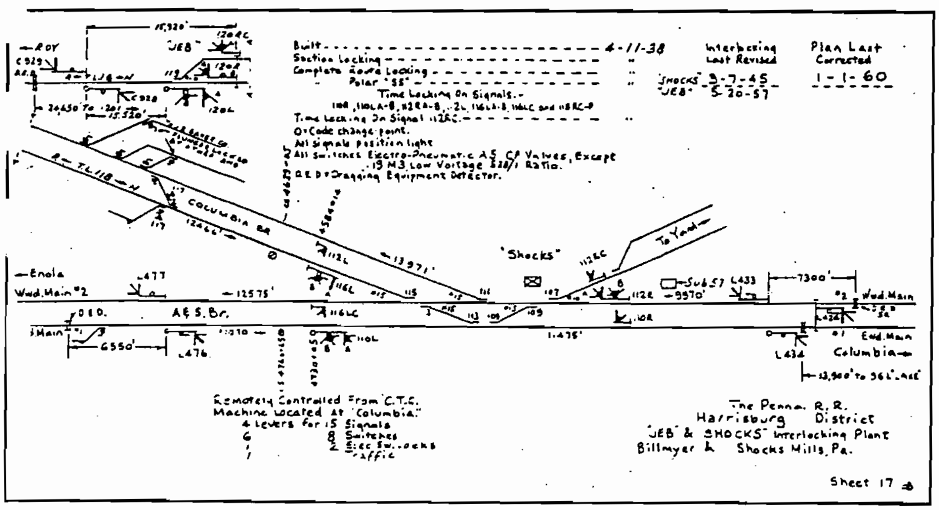


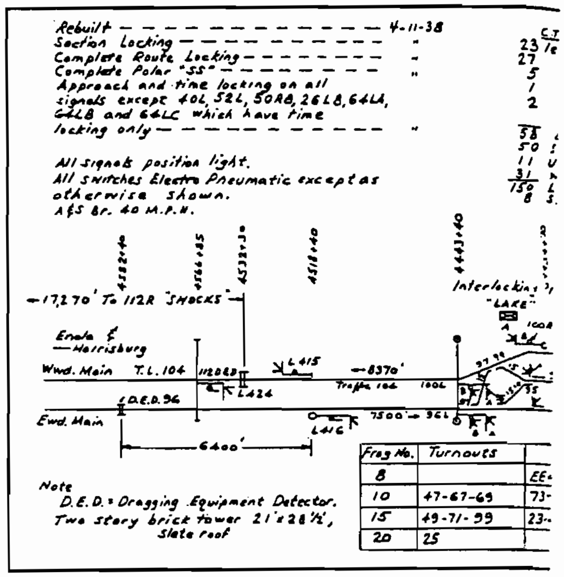
Smith westbound home signal, emergency block station. A&S Branch, Smithville, Pa., June 3, 1973. *(James J. D. Lynch, Jr. photo)*



Eastbound home signal from the A&S Branch, Park Interlocking, Parkesburg, Pa. March 1976. *(James J. D. Lynch, Jr. photo)*

Martic Forge bridge, spanning the Pequea Creek, seen in the early stages of construction. What is now River road curves by the far bridge pier. *(Tom King collection)*





Frog No.	Turnouts
8	
10	47-67-69
15	49-71-99
20	25

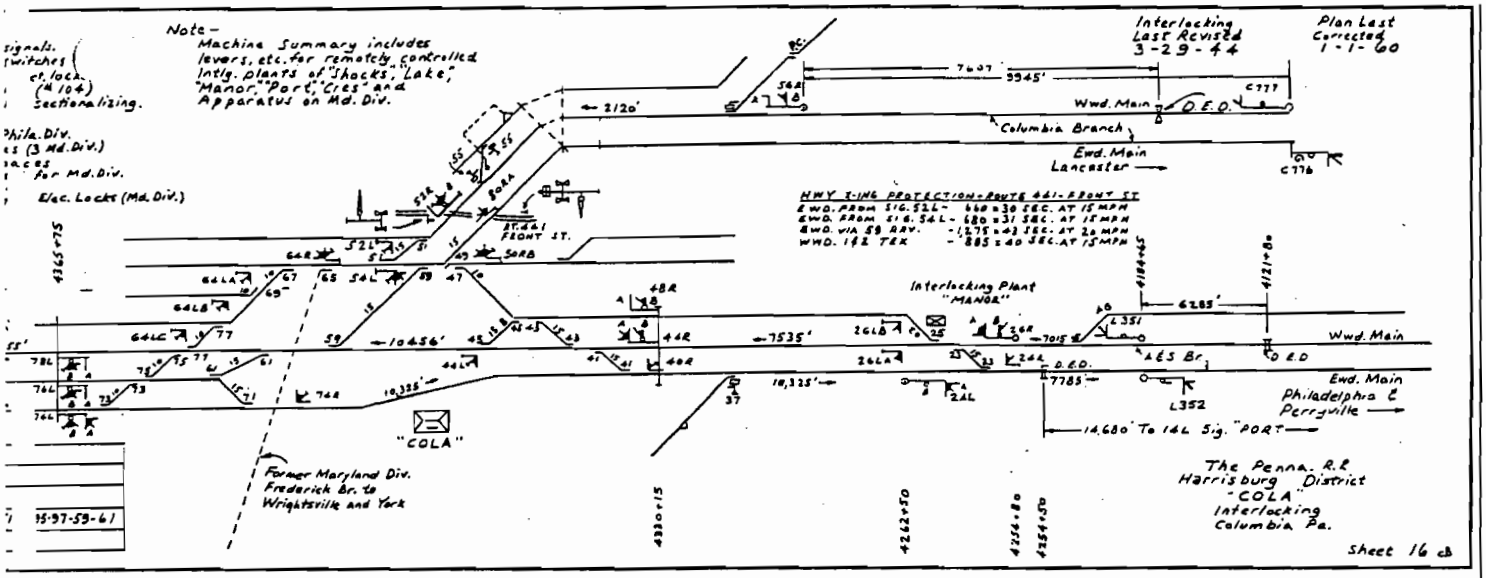
same season, the PRR's Philadelphia Superintendent made a statement justifying the railroad's need for the Low Grade: "The Philadelphia Division of the Pennsylvania railroad (sic) is growing so rapidly that soon, both in point of tonnage and mileage, it will be the largest railroad division in the entire world."

Columbia Borough Council passed an ordinance on November 1 that incorporated many of its earlier demands. However, as the work season was drawing to a close, the railroad did not feel a need to immediately challenge the ordinance.

Autumn also brought a smallpox outbreak in Conestoga Township. The Township's school board (organized as a health board) met with Kerbaugh officials, who agreed to put notices at their camps from Martic Forge to Washington Boro, ordering their men to get vaccinated. Company doctors performed the vaccinations, also offering this service to any poor people who came to the camps.

The railroad started 1906 by taking the water supply from a dozen residents at Creswell for the steam locomotives that would soon be running on the Low Grade. The railroad ordered Kerbaugh to build a tank to draw from a reservoir that would take almost all the water from a small creek near the small Turkey Hill community.

On a brighter note, the PRR opened a new low-grade freight line between Thorndale and Glen Loch on



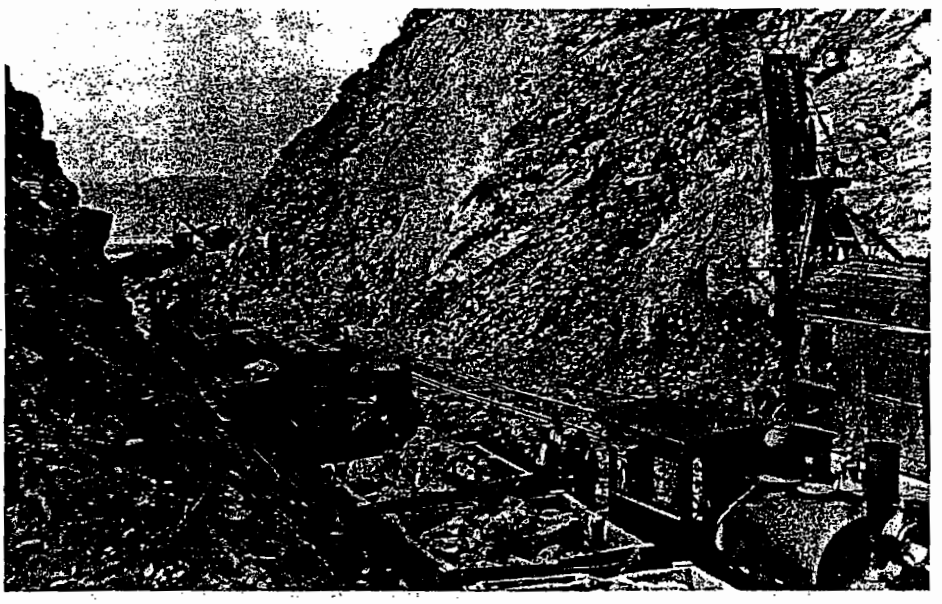
April 11. With this 12-mile line the PRR linked the Low Grade line through Lancaster County with the Trenton Cut-off, which bypassed Philadelphia to the north.

Back in Columbia, on June 5, J. F. Murray, Assistant Engineer of the PRR, met with Borough Council and asked what Council would do about the railroad ordinance. The railroad would not make any more concessions and Council moved to stop negotiations.

On June 9 one of the worst accidents during the Low Grade construction happened a mile and a half from Pequea, when explosions of unknown origin destroyed a dynamite factory owned by G. R. McAbee Powder and Oil Company of Pittsburgh. At 12:40 p.m., 2,500 pounds of dynamite exploded in the punching house, where workers filled paper shells with the explosives. Seven minutes later, one ton of nitroglycerine stored in a nearby building went up. Eleven men died. Relatives could identify only one, and the remains of the others, found thrown over a half mile radius, went into a common casket for burial.

Despite all the accidents, work was fast coming to an end, but the Columbia problem remained. The railroad forced the issue by extending the tracks across Locust Street on the morning of June 18. The PRR's logic was that it had bought the right-of-way from the Philadelphia and Reading over Locust Street and this gave it

A crane hoists a section of the Martic Forge bridge into place. The trolley tracks belong to the line running between Millersville and Pequea. *(Tom King collection)*



Dinky locomotives and steam shovels at work in an A&S cut. *(Tom King collection)*

the right to lay the track. Council disag[illegible] and directed town workers to remove the tracks and to get help from the fire companies if needed. Soon fire bells rang and factory whistles blew to summon the fire companies. The railroad ran a train back and forth over the new track to protect it. To stop the engine, firemen sprayed the crew with water, until another passing train severed the hose. Firemen immediately dug a trench under the tracks for a replacement hose and resumed spraying.

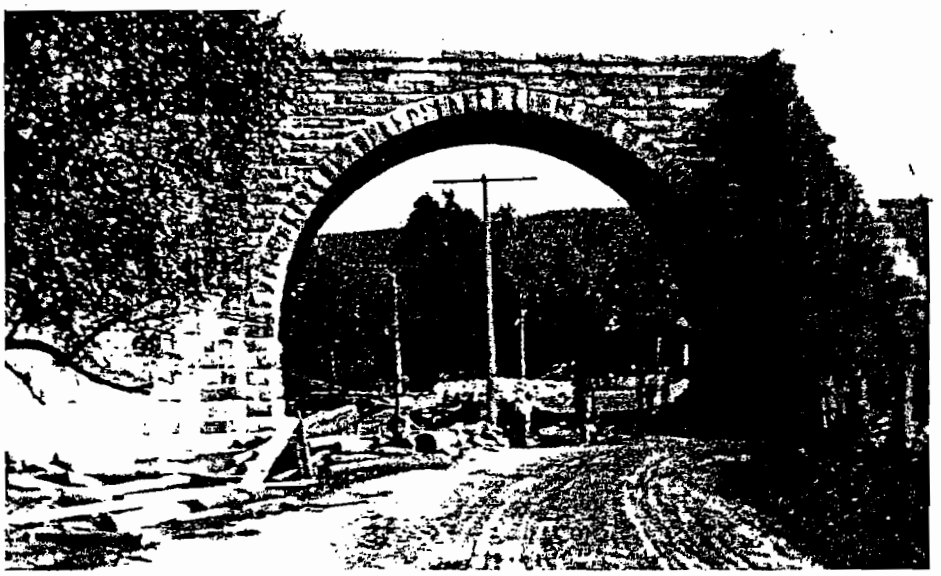
Several thousand citizens soon began tearing up the track, despite a heavy rain. The railroad ordered their workers away about the same time the sheriff arrived with an injunction against interfering with the railroad.

Late that night, Borough officials obtained an injunction, preventing the railroad from re-laying the track. With the various injunctions in place, stalemate resulted. But, although William H. Brown, the PRR's Supreme Court, was retired, he had like-minded successors and, so, guess who won.

Ultimately, the Low Grade made it through Columbia and all the various segments began linking together. The last part finished was the "Deep Cut" near Quarryville, where the John Shields Construction Company worked a year blasting and digging through hundreds of feet of almost solid rock to a depth of 90 feet.

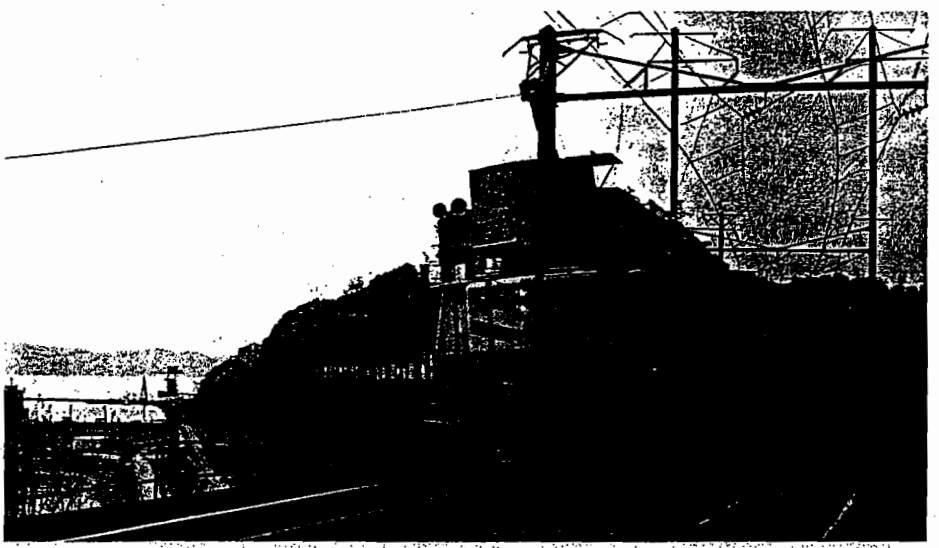
The railroad held the dedication ceremony in this cut on July 27, 1906. John Hendrie, a superintendent for Shields, was the master of ceremony. At noon George W. Hensel, Jr., a prominent Quarryville merchant, swung a silver-plated hammer and, with three blows, drove in the silver spike. Hensel's father presided over a similar ceremony in May 1875 when the Lancaster and Reading Narrow Gauge Railroad reached Quarryville.

The ceremony's highlight came when Miss Anna Acheson, daughter of J. R. L. Acheson, an assistant superintendent of construction, broke a bottle of champagne over the rail and declared, "I dedicate this enterprise to the uses of humanity and to the glori-

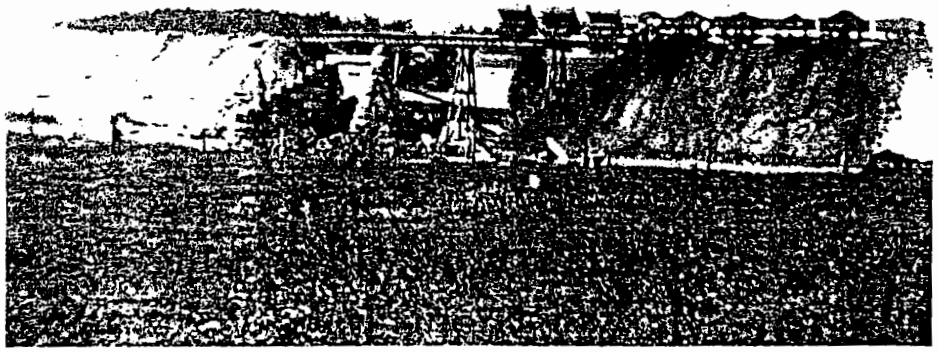


Just-completed 60-foot arch, near Atglen, Pa. *(author's collection)*

Conrail Mail Train #9, led by newly-arrived GE B23-7 units #1913 and 1914, westbound on the A&S near Creswell, Pa. May 7, 1978. Note the keystone over the concrete building's door. *(author's photo)*

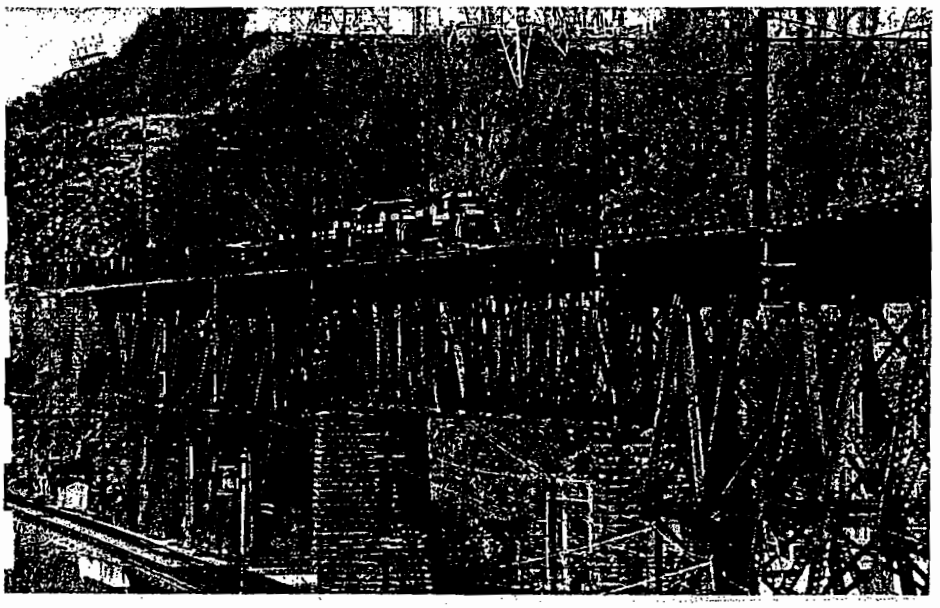


One-of-a-king EMD motor demonstrator #1975 on Conrail PF-6 crosses the Safe Harbor bridge on the A&S. May 7, 1978. *(author's photo)*



After a contractor built a stone arch bridge, workers would bring train loads of fill in to build up the approaches. *(author's collection)*

Conrail E44 motors 4408, 4400 and 4412 with an eastbound freight, crossing Martic Forge Bridge. July 2, 1978. *(author's photo)*



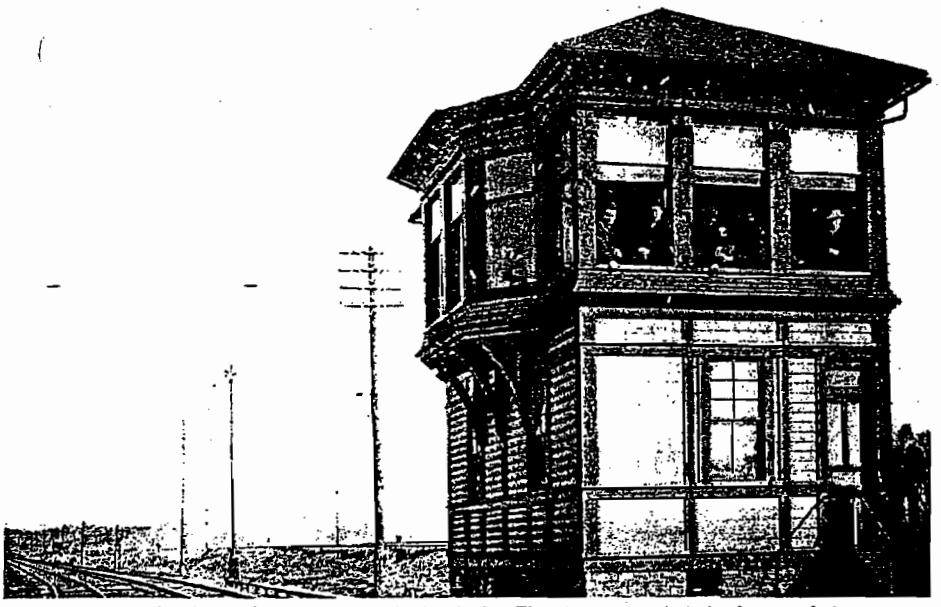
fication of God's chosen country - the lower end of Lancaster County."

Finally, after over three-and-a-half years, $19.5 million, and reportedly more than 200 lives lost, the Pennsy had its freight bypass through Lancaster County. The railroad named the line the "Atglen and Susquehanna Branch," but crews and local people would abbreviate it "the A&S" or call it the "Low Grade."

What did the railroad get for its investment? The A&S had two tracks over its 50.6 miles (close to the length of the Panama Canal), from Parkesburg to Wago Junction. Eastbound the ruling grade was only 0.3%, half the main line's, while westbound it was 0.6%. Where the ruling grades were (from near Washington Boro to Atglen) there were no grade crossings for engineers to worry about encountering cars or wagons. Divided into 11 sections, the A&S was reportedly the first long route of steam railroad controlled by telephone. These telephones were at 40 locations, spaced apart (on average) 1.26 miles. There were eight train-order offices (or block stations) on the A&S where operators could switch trains from one track to the other and give them train orders from the dispatcher in Columbia: from east to west, Parkesburg (M.P. 0.0, "PG"), Atglen (M.P. 3.2, "NI"), Quarryville (M.P. 10.8, "Q"), Shenks Ferry (M.P. 22.0, "SF"), Creswell (M.P. 33.3, "CO"), Columbia (M.P. 37.7, "LG-42"), Marietta (M.P. 42.1, "RQ"), and Wago Junction (M.P. 50.6).

Notice that the one tower in Columbia was called "LG-42." The "LG" represents "Low Grade;" the railroad assigned the designation LG and a number to key points on the A&S. For example, at "LG-14," west of Quarryville, there was a manually-operated crossover from one track to the other. The "LG" is not the milepost marker. There are separate milepost markers (white, cast-iron, vertical posts marked with the milepost number) along the A&S. Addition-

◀ *A Conrail eastbound freight on the massive Safe Harbor bridge in April 1986.* *(Robert Kise photo)*



"SD" Tower, Shocks Mills, Pa., circa 1910-1912. The A&S Branch is in front of the tower; the Columbia Branch is to the rear. Geographic south (bay) and east (right) elevations.
(James J. D. Lynch, Jr. collection)

"LG-41" Tower stood at the foot of Locust St. in Columbia, Pa., near M.P. 41 on the A&S. To the left of the tower is a marker which indicates the start of the Columbia & Port Deposit, owned by the Philadelphia, Baltimore & Washington, in turn owned by the PRR.
(Tom King collection)

ally, the signals are marked with numbers such as "L71," which relate to the mileposts (or miles from Parkesburg). Here the "L" also stands for "Low Grade" and the "71" represents the milepost times ten (or milepost 7.1). Odd-numbered signals are for the westbound track, even ones for the eastbound.

Despite all the A&S's advantages, the railroad now owned a route that had many cuts (prone to landslides) and fills (subject to washouts). To guard against these natural disasters, the PRR built 11 watchboxes, staffed round-the-clock, where employees could start patrols to check track conditions and phone the dispatcher to halt trains if there were problems. The watchbox names ran from the ordinary (Mann's Run) to the colorful (Buzzard Rock and Crow's Head). The route also had three major stone bridges (Codorus, Shocks Mill and Chickies), two major steel ones (Safe Harbor and Martic Forge), and various culverts, underpasses and overhead road bridges that required maintenance. When the PRR built the A&S, labor rates were low, but as time passed, labor costs for maintenance became increasingly significant.

Soon after the dedication, the railroad started to run freights over the A&S and provide relief to the main line. On August 23, 1906, the railroad ran a special so that General Manager Atterbury and other railroad officials could inspect the new route. Unfortunately (near Buzzard's Rock), west of Safe Harbor, the special struck and killed a track worker, the first to die on the new line.

With the A&S open, the PRR finally opened the Port Road up for regular service on August 1, 1906. The railroad had wanted to open it four weeks earlier, but a storm loosened rocks and carried stone walls away. Travelers would find a railroad much changed between Washington Boro and Shenks Ferry. To accommodate the A&S, contractors filled in much of the previously-existing raft channel and moved the Port Road onto this new fill.

The A&S's opening had a great effect on Columbia. The railroad announced that it was breaking up 39 Columbia-based crews, with some members going to Enola for work on the A&S, while others would go to Harrisburg. Six crews would stay based in Columbia for work on the Philadelphia Division, besides the crews for shifting and local work.

Ultimately the A&S settled down into normal operations. However, in 1936 a flood struck that knocked the line out of service for several months. To understand what happened, an examination of the track layout in the Chickies Rock-to-Columbia stretch is in order.

The PRR's Columbia Branch, aside from running between Lancaster and Columbia, continued along the Susquehanna, passed through a tunnel north of Columbia and followed the curving shoreline (as the canal had done) to Chickies Rock. When workers built PRR's A&S through the area, they followed a straight line between the two points protruding into the river (Chickies Rock and the tunneled hill near Columbia) instead

of following the shore. To make this st[illegible]ght line, the workers had to dump huge amounts of fill into the river. When completed, the A&S formed one side of a cut-off, backwater, poorly-drained area named Kerbaugh Lake (after the contractor).

In late March 1936 the Susquehanna began flooding because of spring rains and runoff from melting snows. The flood waters broke through the A&S roadbed fill near Chickies, quickly filled Kerbaugh Lake and rushed through the tunnel, inundating the PRR's Columbia Yard. In searching for an outlet, the waters knocked "LG-42" Tower (on the north side of what is now the Pa. Route 462 bridge) off its foundation. Water, trying to escape Kerbaugh Lake, broke through the A&S fill near the Columbia tunnel. All that remained of the A&S between Columbia and Chickies Rock was a small island in the midst of the swirling Susquehanna's raging waters. The railroad worked for several months to restore service. At the lower end of Kerbaugh Lake, workers put larger pipes (still present and visible) under the roadbed to improve drainage.

The mid-Depression years saw a major addition to the A&S - electrification. The Pennsy had been electrifying many of its eastern tracks since the turn of the century and in 1937 started working west from Paoli. In just over a year the PRR electrified the A&S. On April 15, 1938 the first electric-powered freight train rolled out of Enola.

The high-voltage lines at the top of catenary poles, spaced about 20 per mile along the A&S, ran at 132,000 volts, 25 cycles and could carry electrical power from the generators at Safe Harbor not only for the A&S, but also for the main line, which the railroad electrified simultaneously. The Safe Harbor turbines supplied the cheapest electricity of any of the sources the PRR used for its electricity.

The lower catenary wires, from which the electric locomotives ("motors", in PRR terminology) drew their power, operated at 11,000 volts. There were seven substations along

K4s and nine cars, eastbound at Parkesburg, Pa., circa 1927-1928. Looking westward at Park "PG" Interlocking; the two center tracks lead to the A&S Branch, in the distance.
(James J. D. Lynch, Jr. collection)

The 1877 PRR station stood (and still stands) at the foot of Walnut St. in Columbia. While passenger trains never ran over the entire A&S, They did use part of the Branch, including the tracks in front of the passenger station (and express building, to the left).
(PRR photo; author's collection)

the A&S to step the high voltage down to this lower voltage that the motors used.

While electrifying, the PRR took the opportunity to consolidate block stations at Columbia. The railroad built a new tower at the foot of Locust Street and named it "Cola." Operators in Cola would control the Columbia Branch, the Port Road and the A&S between Port Interlocking (the point where the A&S and Port Road joined) and Wago Junction. West of Wago, Cly Tower would control.

East of Port, the railroad consolidated block stations also. At the A&S east end, Parkesburg (which also controlled part of the main line) remained. Near Smithville, Smith Tower controlled train movements over the section that traversed southern Lancaster County. Located off Pennsy Road, which paralleled the tracks on the north side for a considerable distance, Smith was at the east end of a long passing siding. This siding, which could hold 86 50-foot cars, made the A&S three tracks wide at that location.

By September of 1941, the A&S at Parkesburg was handling (on average)

The March 1936 flood knocked "LG-42" Tower off its foundations. The single track crossing the A&S was the Frederick Branch, which crossed the Susquehanna (to the right) at Columbia. *(Tom Hoch photo; Tom King collection)*

29 eastbound freights, with 2,424 cars and 23 westbounds, with 2,224 cars. This compared to the ten eastbound freights, with 472 cars and 13 westbounds, with 809 cars, using the main line. The main line also had 33 passenger trains each way. The average A&S freight had approximately 89 freight cars, while the average main line freight had only about 56.

On the A&S the PRR handled the increase in traffic caused by World War II without any major changes. The railroad did invest $11,000 to improve its water supply in the Quarryville area.

After World War II, the A&S was still quite busy. At Parkesburg in June of 1948 the A&S saw 24 eastbounds, with 2,022 cars, and 20 westbounds, with 1,736 cars. The main line hosted seven eastbounds, with 311 cars and twelve westbounds, with 738 cars, 37 eastbound passengers and 34 westbounds. The average A&S train had around 85 cars (a increase of about four), while the main line's average freight was near 55 (a drop of about one). Overall the A&S traffic was down almost 20% in terms of cars when comparing 1941 and 1948 and not adjusting for other effects such as seasonal trends.

Following the War's end, the railroad could tackle the problem of Kerbaugh Lake. Not wanting a repeat of the 1936 disaster, the railroad decided to eliminate the lake by filling it. On August 6, 1948, the railroad submitted a proposal to the Sims Construction Company to fill the lake. After reaching terms with Sims, the railroad began shipping in rubbish from Altoona to act as fill. The job took the PRR and Sims into the 1950s to finish.

While eliminating Kerbaugh Lake solved a potential natural disaster, normal railroad operations always had problems, such as wrecks. While many were spectacular, most did not cause deaths. On April 17, 1963, 18 cars out of 75 in a Philadelphia-to-Pittsburgh train loaded with ore went on the ground in front of Smith Tower. The railroad needed a day to restore operations (with diesels) and another half day to get the wires restored. Trains detoured over the main line.

In another case, the railroad suspected a mechanical failure on the 32nd car of a 94-car ore train for derailing the suspect car and the following 36 in the big cut east of Quarryville. Because the PRR's wreck cranes were in use, the railroad borrowed two from other railroads to untangle the January 11, 1965 wreck. A Reading Company wreck crane worked from the east and a Western Maryland Railway crane came in from the west. The cars were accordioned in the cut, making them difficult to extract. While no one was hurt during the accident, two cleanup workers received leg injuries when they fell off one of the cars when it shifted unexpectedly.

The worst wreck in the last half of the A&S's life happened on August 14, 1962 at Atglen. Because of track work on the eastbound (#1) Track, "Q" Block Station was open and the operator sent Extra 4415 (E44, running with another E44, #4407) over the crossover and east on the westbound (# 2) Track. He did the same for a following train, Extra 4755 (an unmodified P5a with another, #4772). Cola had given each train orders that this crossover operation would happen. While Extra 4415 was going ten mph, Extra 4755, going at an undetermined speed, collided with the first train's rear, 0.4 miles west of Atglen.

The conductor and flagman on Extra 4415 were able to alight from the cabin car before the collision and escaped injury. Unfortunately, the impact killed the two enginemen on #4755 and telescoped the front half of the motor, injured the other three crewmen of Extra 4755 and five guards who were on the last car (a passenger-baggage), ahead of Extra 4415's cabin. The guards were accompanying a shipment of low-level, fissionable material, possibly nuclear submarine fuel. This car (and four others on Extra 4415) derailed, but was only somewhat damaged. The Interstate Commerce Commission report officially listed the cause as: "failure to control properly the speed of a following train moving in an occupied block."

On a more pleasant note, passenger trains did, occasionally, travel the whole A&S. Most times, the passenger trains were specials like the one in 1936 that had PRR #5725, a 4-6-0, as power and paused on the Safe Harbor high bridge for photographs. Another, with PRR MP54 electrics that normally had commuter train duty, traveled the route in 1957 on a New York-to-Harrisburg excursion. Still another, a Philadelphia Chapter, National Railway Historical Society special, ran in 1978. A wreck diverted an eastbound Amtrak train, the "National Limited," on October 9, 1976 over the A&S.

In addition to wrecks and special trains, the PRR had to contend with fires their locomotives (especially steam engines) would start along the A&S. A typical case involved M1 #6977 on March 22, 1946. That day the 4-8-2 was eastbound at M.P. 10 when a spark from it ignited dry grass

along the right-of-way. The fire spr(to a nearby meadow, burning over two acres before three PRR employees, the Quarryville Fire Department and a State Forest Fire Warden, battling the blaze for several hours, managed to extinguish it.

In the early 1960s fire created a most unusual problem to vex the Pennsy. The large fill near the curve at Shenks Ferry, where the railroad swings east away from the river, ignited. Made of coal mine tailings, the fill burned, proved difficult to extinguish and caused the roadbed to settle dangerously. To keep watch on the settling and direct railroad traffic for the many months while fire fighting and repairs were continuing, the railroad built a temporary block station and, appropriately, called it "Fire."

The merger of the PRR and New York Central in 1968 to form Penn Central did not cause many changes to A&S operations. Four years later, Hurricane Agnes changed operations drastically. The June storm undermined piers of the Shocks Mill Bridge and caused the center section to collapse into the river. Penn Central, now bankrupt, had to obtain court approval to rebuild the center section; this took several years.

When Conrail took over Penn Central and other bankrupt Northeast railroads in 1976 and Amtrak gained the Philadelphia-to-Harrisburg main line and electric power distribution system, the operations again changed dramatically. Conrail had to pay Amtrak for power from the overhead for the electric locomotives and for trackage rights over the main line east of Parkesburg. Conrail felt Amtrak's charges were excessive, while Amtrak felt it was merely recouping costs for the power and wear and tear on its property.

Conrail, however, had an alternate route into Philadelphia, the ex-Reading main line from its hometown. Conrail upgraded that route and diverted freight off the A&S. From 40 million plus gross ton-miles per mile of track before Conrail, the A&S fell to under half that amount.

By using alternative routes, Conrail had no need for its electric freight motors (ex-PRR GG1 motors from

P5a tripleheader, led by #4718, westbound past Smith Tower, June 1961.
(J. P. Shuman photo; James J. D. Lynch, Jr. collection)

the '30s and '40s and E44 locomotives from the '60s), could retire them and remove the catenary from its freight-only lines. Contractors tore down the Low Grade catenary in 1986 but left the Amtrak-owned poles and higher-voltage upper wires to carry power from Safe Harbor to the main line.

By 1988 there were only two scheduled freights over the line in each direction: PIMO and PIML eastbound and MOPI and LMPI westbound. On December 19 the last regularly-scheduled freight ran on the Low Grade. When train PIMO-8 with locomotives 6459, 6482, 7743 and 1612, 77 loads and 57 empties, passed Parkesburg at 3:18 p.m., over 80 years of service on Lancaster County's Low Grade came to an end.

Conrail began removing the tracks from the Low Grade in 1990. Some rail was welded (and installed as recently as 1976) and some was bolted. The rail would go to Conrail's Lucknow rail processing plant north of Harrisburg for reconditioning and ultimate re-laying.

With the tracks gone and the line abandoned by Conrail there has been much discussion in Lancaster County as to what to do with the route. Some want to turn the route into a highway that will be a southern bypass. This proposal faces the problems of what to do with the Amtrak-owned and used catenary poles that would be hazardous to motorists and how to logically tie the line into the road network. Others want to convert the route into a hiking trail and face problems of vandals, trash dumpers and various liability issues. Both face the problems of who will replace the deteriorating over- and underpasses and maintain the Safe Harbor and Martic Forge bridges.

Conrail continues to use the remaining part of the Low Grade between Wago Junction and Port Interlocking (now out-of-service) regularly, as a natural continuation of the Port Road Branch (ex-PRR Columbia and Port Deposit Branch). After the Conrail-Amtrak collision at Gunpow Interlocking, Amtrak essentially forced Conrail to run freights on the Northeast Corridor at night. This ban greatly affected Conrail operations on the Low Grade. In the evening a procession of trains heads east to run on the Corridor after dark. In the early morning there is a reverse procession of trains which came the opposite direction on the Corridor at night. Another train that follows the same pattern is the daily turnaround that runs from Enola to Lancaster and back. The only trains normally running in daylight on the Low Grade are the local from Lancaster that works to Marietta, plus work extras.

Born in an era when America regularly tackled big projects, the Low Grade was one of the largest civil engineering projects Lancaster County has ever seen. Half the route now has no rails, only an overhead power line; the rest remains an active nighttime railroad. All of it is an important part of Lancaster County's railroad heritage.

APPENDIX D

SAFE HARBOR BRIDGE HAER DOCUMENTATION

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HISTORIC AMERICAN ENGINEERING RECORD

PENNSYLVANIA RAILROAD, SAFE HARBOR BRIDGE
(Philadelphia, Baltimore & Washington Railroad, Safe Harbor Bridge)

HAER No. PA-531

Location:	Spanning mouth of Conestoga River, Safe Harbor, Lancaster County, Pennsylvania.
USGS Quadrangle:	Safe Harbor, Pennsylvania (7.5-minute series).
UTM Coordinates:	18/381685/4420165
Date of Construction:	1905.
Basis for Dating:	Secondary sources.
Date of Alteration:	Circa 1930.
Designer:	William H. Brown (Chief Engineer, Pennsylvania Railroad).
Fabricator:	Pennsylvania Steel Co. (Steelton, Pa.).
Builder:	H. S. Kerbaugh, Inc.
Present Owner:	Norfolk Southern Railroad.
Present Use:	Railroad bridge.
Structure Type:	Riveted deck girder; pin-connected Pratt deck truss.
Significance:	The Safe Harbor bridge is an unusual two-level structure built to carry two different Pennsylvania Railroad branches. The low-grade freight line on the upper level was chief engineer William H. Brown's last major project before retirement.
Historian:	Justin M. Spivey, April 2000.
Project Information:	The Historic American Engineering Record (HAER) conducted the Pennsylvania Historic Railroad Bridges Recording Project during 1999 and 2000, under the direction of Eric N. DeLony, Chief. The project was supported by the Consolidated Rail Corporation (Conrail) and a grant from the Pennsylvania Historical and

Museum Commission (PHMC). Justin M. Spivey, HAER engineer, researched and wrote the final reports. Preston M. Thayer, historian, Fredericksburg, Virginia, conducted preliminary research under contract. Jet Lowe, HAER photographer, and Joseph E. B. Elliott, contract photographer, Sellersville, Pennsylvania, produced large-format photographs.

Description and History

In 1902, the Pennsylvania Railroad (PRR) made plans to build a new low-grade freight line across Lancaster County, a decision motivated by steep grades on its four-track main line between Philadelphia and Harrisburg. Called the Atglen & Susquehanna Branch (A&S), or simply the Low Grade, it diverged from the main line at Parkesburg and passed south of Lancaster, through Quarryville and Martic Forge, to Shenk's Ferry on the Susquehanna River. The A&S then paralleled the existing Columbia & Port Deposit Branch (C&PD) of the Philadelphia, Baltimore & Washington Railroad (a PRR subsidiary) along the river's east bank. At Shock's Mills it crossed the Susquehanna on a new stone arch bridge and proceeded along the west bank to rejoin the main line at Marysville. Construction of the line, which consumed "over three and a half years, $19.5 million, and reportedly more than 200 lives," is a story in itself, amply covered by historian Frederic H. Abendschein.[1]

The A&S was but one of a number of improvements to freight operations in eastern Pennsylvania during the administration of PRR President Alexander J. Cassatt. Other items proposed by Cassatt in 1902 included grade reduction on the Trenton Cut-Off and construction of the Philadelphia & Thorndale Branch, the completion of which provided a continuous freight bypass around Philadelphia.[2] The 1902 plan left a gap of about ten miles from Thorndale to Parkesburg, between which freight trains shared the main line with passenger traffic. Although the gap was never closed, the Philadelphia bypass and the A&S together constitute initial segments of "a low grade route stretching from the eastern seaboard to the midwest," a vision which Abendschein attributed to former PRR President J. Edgar Thomson, who served from 1852 to 1874.[3]

Construction on the A&S began with the Shock's Mills bridge in late 1902. As work proceeded, a 1904 flood turned over the six-span stone arch bridge that carried the C&PD tracks over the Conestoga River.[4] Rather than rebuild this bridge, PRR evidently decided to incorporate its replacement into a new bridge for the A&S. As the two lines travel south from Columbia, the C&PD descends to follow the river while the A&S ascends in preparation for its turn to the east. (Where the lines diverge at Shenk's Ferry, these two lines are 150'-0" apart in elevation.) The new Conestoga River bridge was therefore designed with two levels, with the C&PD's two tracks at 55'-0" above the 1905 river level, and A&S's two tracks 92'-0" higher and 96'-0" to the east.[5] The C&PD spans, riveted deck plate girders 98'-6", 98'-0", and 98'-6 long, comprise the entire 295'-0" length of the lower level.[6] At the upper level, the A&S spans include not only a 300'-0" pin-connected Pratt deck truss over the river, but also plate-girder viaducts on steel trestle bents,

nine spans totaling 480'-0" on the north approach, and seventeen spans totaling 780'-0" on the north. The high stone piers supporting the 300'-0" truss are monolithic with the lower level abutments.[7]

PRR's wholly-owned subsidiary, Pennsylvania Steel Co. of Steelton, fabricated all of the steel work, which was erected by the contractor on this section, H. S. Kerbaugh, Inc., during 1905. Construction photographs show that the high stone piers and falsework for the 300'-0" truss were built concurrently. During this time, the C&PD used a temporary wooden trestle off to one side. Erection first began on the 300'-0" truss, aided by a traveler. Shortly thereafter, additional traveling cranes were employed for the north and south approach viaducts, working from the abutments toward the river. Almost all of the high-level erection had been completed before crews began work on the low-level girders.[8] The A&S opened to traffic in July 1906, and the C&PD, which had suffered numerous diversions and interruptions during construction, returned to regular service that August.[9]

Construction of the Safe Harbor Dam in the 1930s raised the river's level considerably, prompting PRR to raise the C&PD grade. Maintenance records indicate that Belmont Iron Works raised the lower spans 4'-0" and installed reinforced concrete bridge seats. While the former C&PD continues to see freight traffic, then-owner Conrail removed tracks from the upper level in 1990, after abandoning this portion of the former A&S.

Notes

1. Frederic H. Abendschein, "The Atglen & Susquehanna: Lancaster County's Low Grade," *Journal of the Lancaster County Historical Society* 95, No. 1 (Winter 1993): 2-19. This article also appears in *Keystone* 27, No. 3 (Winter 1994): 10-25, with substantially more photographs.

2. Howard W. Schotter, *The Growth and Development of the Pennsylvania Railroad Company: A Review of the Charter and Annual Reports of the Pennsylvania Railroad Company 1846 to 1926* (Philadelphia: Press of Allen, Lane, and Scott, 1927), 281-2.

3. Abendschein, "The Atglen & Susquehanna," 3.

4. "The Low Grade Freight Cut-Off of the Pennsylvania R. R. — II," *Engineering Record* 52, No. 26 (23 Dec. 1905): 707-10.

5. "The Low Grade Freight Cut-Off of the Pennsylvania R. R. — I," *Engineering Record* 52, No. 25 (16 Dec. 1905): 674-7.

6. Pennsylvania Railroad, "C. and P. D. Bridge at Safe Harbor over Conestoga Creek, Col. and Port Deposit R. R. — Md. Div. — P. B. & W. R. R.," dated Jun. 1905; and Pennsylvania Steel Co., "97 ft. 8 in. Girders, C. & P. D. Bridge at Safe Harbor over Conestoga Creek, Col. & Port Deposit R. R. Md. Div., P. B. & W. R. R.," dated 30 Jun. 1905; both milepost 33.06, region/division/branch 131322, aperture card files, Consolidated Rail Corp., Philadelphia, Pa. [transferred to Norfolk Southern Railway Co., Atlanta Ga.; hereinafter cited as Conrail aperture cards].

7. Pennsylvania Railroad, "Masonry Plan of Bridge over Conestoga Creek at Safe Harbor for Columbia and Port Deposit Ry., Maryland Div., P. B. & W. R. R., and High Piers for Atglen and Susquehanna Br., Phila. Div., P. R. R.," dated 15 Jun. 1905, Conrail aperture cards.

8. For construction photographs, see negatives K002759, K002861, K002864, K002874, and K002893, Benjamin F. G. Kline, Jr., Collection, Railroad Museum of Pennsylvania, Pennsylvania Historical and Museum Commission, Strasburg, Pa. See also "Photographs on the Operation of H. S. Kerbaugh, Inc., at Safe Harbor, Pa., 1905," album in Costello Collection, Railroad Museum of Pennsylvania, MG 199, Pennsylvania State Archives, Harrisburg, Pa.

9. Philadelphia, Baltimore & Washington Railroad Company, *Fourth Annual Report for the Year 1906* (Philadelphia: Press of Allen, Lane & Scott, 1907), 20.

Acknowledgment

The author is grateful to John W. W. Loose, Historian at the Lancaster County Historical Society, for responding to a preliminary survey form.

Additional Sources

1. "Pennsylvania Low-Grade Line Down the Susquehanna," *Railroad Gazette* 36, No. 11 (11 Mar. 1904): 180-2.

2. "The Pennsylvania Railroad Low Grade Freight Line from Harrisburg to Atglen, Pa.," *Engineering News* 54, No. 26 (28 Dec. 1905): 677-80.

APPENDIX E

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORMS

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM – PHOTO/SITE PLAN SHEET

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
400 North Street, Harrisburg, PA 17120-0093

Survey Code/Tax Parcel/Other No.: PA 075/#1 County: Lancaster 071
Municipality: Sadsbury/W. Sadsbury Townships Address: Noble Road
Historic Name/Other Name: Noble Road Bridge / Atglen & Susquehanna Railroad / Low Grade

SITE PLAN

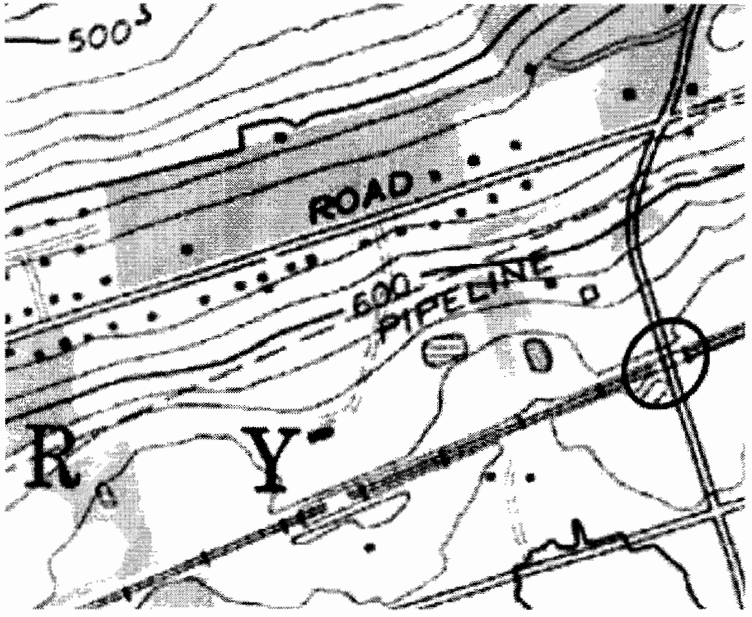

PHOTO INFORMATION

Attach Photo Here

Number	Description of View	Direction of Camera
1	North stone entrance arch.	SW
2	Interior of the stone arch barrel and wingwalls.	WSW
3	Rail bed with tracks removed.	W

Photographer Name: Connie Walsh Date: April 2007
Negative Location: ASC Group, 801 E. Park Drive, Harrisburg, PA 17111

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

IDENTIFICATION AND LOCATION

Survey Code: PA 075/#1 Tax Parcel/Other No.: _____

County: 1. Lancaster 0 7 1 2. _____

Municipality: 1. Sadsbury Township 2. West Sadsbury Township

Street/Road: Noble Road

Crossing Over: Octoraro Creek

Historic Name: Noble Road Bridge

Other Name: Atglen & Susquehanna Railroad / Low Grade

Owner Name/Address: Norfolk Southern Corp., 3 Commercial Place, Norfolk, VA 23510

Owner Category: ☑ Private ☐ Public-local-county ☐ Public-local-municipal ☐ Public-state ☐ Public-federal

USGS Quad: 1. Gap 2. _____

UTM References: A. 180414215E 4421556N

B. _____

HISTORIC AND CURRENT FUNCTIONS

	Historic Function Category:	Subcategory:	Code:
A.	Transportation	Rail-Related	1 6 A
B.			

	Current Function Category:	Subcategory:	Code:
A.	Vacant / Not in Use		0 9 8
B.			

Particular Type: Railroad Bridge

PHYSICAL DESCRIPTION

Architectural Description: No Style 0 1

B. _____ Other: _____

# of Spans 0 1 Overall Length 6 0 Predominant Material 4 3

# of Main Spans 0 1

Main Span

Materials: 1. 4 3 2. _____ Length: 6 0 Span Type: 3 0

Design Type: 5 8 0 2 Structural Feature: 1. 0 4 2. _____

Secondary Span 1

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 2

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 3

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Substructure

Materials: 1. 4 3 2. ____ ____ Structural Feature: ____ ____ Configuration: ____

HISTORICAL INFORMATION

Year Built: ____ ca. 1904 to ca. 1906 Additions/Alteration Dates: ____ ca. ____ ca. ____

Basis for Dating: ☑ Documentary ☐ Physical

Explain: The Atglen & Susquehanna branch was constructed between 1903 and 1906.

Associated Individuals: 1. ____ 2. ____

Associated Events: 1. ____ 2. ____

Architects/Engineers: 1. W. H. Brown 2. ____

Builders: 1. Unknown 2. ____

MAJOR BIBLIOGRAPHICAL REFERENCES

Abendschein, Frederic H., "The Atglen & Susquehanna: Lancaster County's Low Grade." The Keystone, Volume 27, Number 4.Lewistown, PA Railroad Technical & Historical Society, 1994.

Messer, David, Triumph II: Philadelphia to Harrisburg, 1828-1998. Baltimore: Barnard, Roberts and Company, 1999.

PREVIOUS SURVEY, DETERMINATIONS

None

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ☐ Yes ☐ No Context(s): ____

Contributes to Potential District: ☑ Yes ☐ No District Name/Status: Enola Low Grade RR - Eligible

Explain: The Enola Low Grade Railroad was determined eligible for the National Register in 1999 and the Noble Road Bridge is considered a contributing resource.

SURVEY INFORMATION

Survey Name/Title: Susan M. Cabot, Architectural Historian Date: October 2007

Project Name: Enola Low Grade

Organization: ASC Group, Inc. Telephone: 717-564-5705

Street and No.: 801 E. Park Drive, Suite 102

City, State: Harrisburg, PA Zip Code: 17110

Additional Survey Documentation: ____

Associated Survey Codes: ____

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

Survey Code: PA 075/#1 Tax Parcel/Other No.: _____

County: Lancaster Municipality: Sadsbury / W. Sadsbury Townships

Address: Noble Road

Historic/Other Name: Noble Road Bridge / Atglen & Susquehanna Railroad / Low Grade

PHYSICAL DESCRIPTION:

The Noble Road Bridge is located on Noble Road on the boundary between Sadsbury and West Sadsbury Townships along Octoraro Creek in Lancaster County. It is a squared block stone arch underpass with solid spandrels that transition to massive stone wingwalls on each side of the unusually high structure. The semi-circular entrance arches are framed by voussoirs of equal size with a keystone in the center. Capping the bridge and forming the railway bed is a parapet wall constructed with large limestone blocks. There is an iron chain link fence at the parapet level on either side of the railway bed above the underpass opening. The tracks have been removed on the railway bed and the area is covered with gravel. The catenaries that once carried electrical current to the tracks remain in place.

HISTORICAL NARRATIVE:

The Noble Road Bridge is part of the Atglen and Susquehanna Railroad (A&S), perhaps better known as the Low Grade, constructed between 1903 and 1906 and covering a route from the Borough of Atglen in Chester County through Lancaster County. By way of other connecting rail lines, the Low Grade route eventually terminated on the west side of the Susquehanna River at a new rail yard in Enola, just west of Harrisburg.

In 1902 the Pennsylvania Railroad (PRR) embarked on an "Improvement Plan" to build a double track, low grade line between Philadelphia and Harrisburg for the purpose of carrying freight only. There was a need for a safe, cost effective way to move the slower freight traffic between the cities and keep it from delaying passenger traffic on the PRR's Main Line. The A&S was part of that line and it would carry no passengers so all population centers could be avoided. The planned route made use of easy grades in the Chester Valley and the Susquehanna River valleys with cuts, fills and bridges where necessary and minimal curvature. When construction was complete there were three major steel bridges at Brandywine Creek, Martic Forge, and Safe Harbor and three massive stone bridges at Chickies Creek, Shocks Mill and Codorus Creek. All along the A&S line there were smaller bridges, overpasses, and culverts. The entire line was designed and constructed under the direction of the PRR's Chief Engineer, William H. Brown.

The Noble Road Bridge in Sadsbury and West Sadsbury Townships is supported by an underpass that carries the A&S rail line over Noble Road. Construction contracts for the A&S line of the Low Grade were divided between five contractors who set up headquarters in various parts of southern Lancaster County.

The entire Low Grade Line came into service in July 1906. The A&S portion of the Low Grade ran for 44.9 miles from Parkesburg in Chester County to Shocks Mills in Lancaster County. Eastbound the average grade was 0.03% and westbound the grade averaged 0.06% and there were no grade crossings to hold up the line's schedule or risk accidents with road traffic. The A&S successfully carried freight traffic through Lancaster County for the first third of the twentieth century; in 1936 a severe flood put the line out of service for several months. The Low Grade was included when the PRR initiated its east-west electrification project in 1937 and the A&S had motor-powered fright trains by early 1938. The Safe Harbor dam and hydroelectric station, opened in 1931, provided power for the A&S branch of the Low Grade as well as the main line of the PRR.

As the Low Grade prospered the freight yard at Enola continued to grow. By the beginning of World War II it had over one hundred miles of track and an average train length of eighty-nine cars. Freight traffic increased during World War II but fell twenty percent below pre-war figures in the late 1940s.

The PRR merged with the New York Central in 1968 to form the Penn Central. In 1972 flood waters on the Susquehanna as a result of Hurricane Agnes weakened poorly constructed piers of the Shocks Mill Bridge causing the collapse of the center section of the bridge. It took the cash strapped Penn Central over a year to complete repairs.

In 1976 Conrail took over the freight operations of the Penn Central and Amtrak gained control of the passenger line between Philadelphia and Harrisburg as well as responsibility for distribution of the electrical power. Conrail objected to Amtrak's rates and chose to upgrade the former Reading Railroad line through the Schuylkill Valley to carry freight into Philadelphia. This decreased traffic on the Low Grade by half and in 1988 regular freight service on the Low Grade was discontinued after over eighty years of service. In 1990 Conrail began to remove many of the railroad tracks from the Low Grade line including those along the A&S branch.

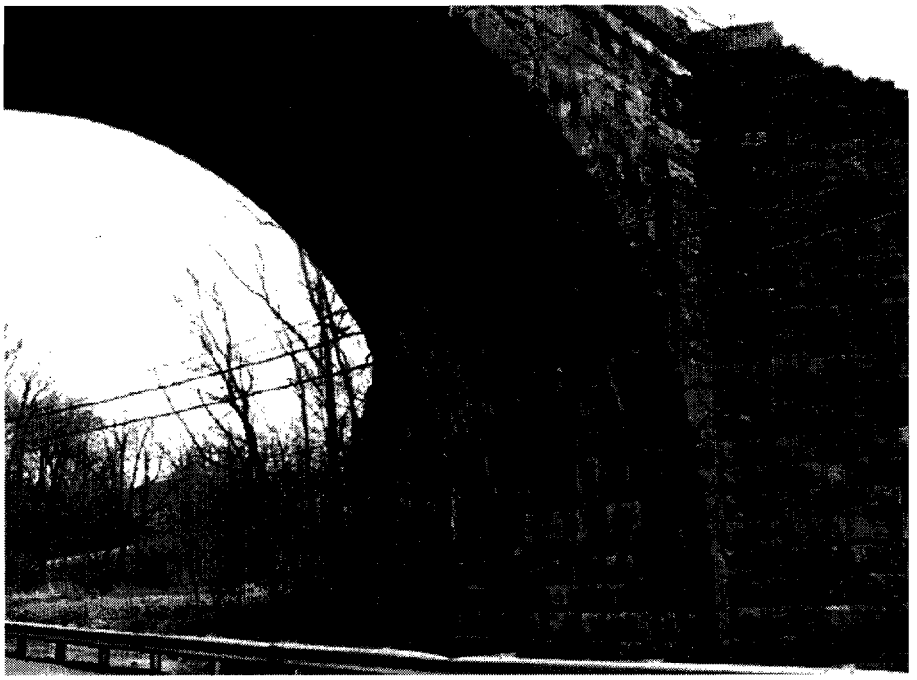

Photo 2. Interior of the stone arch barrel and wingwalls on both elevations.

Photo 3. Rail bed with tracks removed with fence and catenary frames in place.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM – PHOTO/SITE PLAN SHEET

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
400 North Street, Harrisburg, PA 17120-0093

Survey Code/Tax Parcel/Other No.: PA-075/#6 County: Lancaster 071
Municipality: Bart Township Address: Vintage Road
Historic Name/Other Name: Vintage Road Bridge / Atglen & Susquehanna Railroad / Low Grade

SITE PLAN

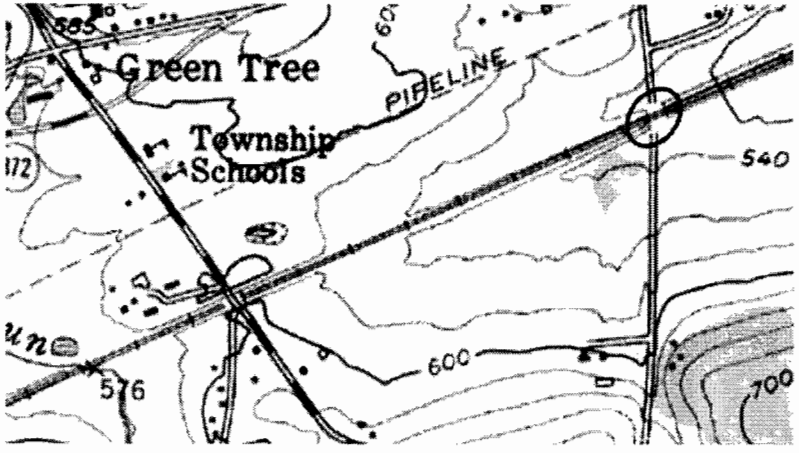

PHOTO INFORMATION

Attach Photo Here

Number	Description of View	Direction of Camera
1	North arch entrance.	S
2	Interior of the arch barrel and north face repair.	W
3	Rail bed with tracks removed.	E

Photographer Name: Connie Walsh Date: April 2007
Negative Location: ASC Group, 801 E. Park Drive, Harrisburg, PA 17111

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

IDENTIFICATION AND LOCATION

Survey Code: PA-075/#6 Tax Parcel/Other No.:

County: 1. Lancaster 2.

Municipality: 1. Bart Township 2.

Street/Road: Vintage Road

Crossing Over: Vintage Road

Historic Name: Vintage Road Bridge

Other Name: Low Grade

Owner Name/Address: Norfolk Southern Corp., 3 Commercial Place, Norfolk, VA 23510

Owner Category: ☑ Private ☐ Public-local-county ☐ Public-local-municipal ☐ Public-state ☐ Public-federal

USGS Quad: 1. Gap 2.

UTM References: A. 180409890E 4419741N
B.

HISTORIC AND CURRENT FUNCTIONS

	Historic Function Category:	Subcategory:	Code:
A.	Transportation	Rail-related	1 6
B.			

	Current Function Category:	Subcategory:	Code:
A.	Vacant/Not in Use		0 9 8
B.			

Particular Type: Railroad Bridge

PHYSICAL DESCRIPTION

Architectural Description: No Style

B. Other:

# of Spans 0 1 Overall Length 3 2 Predominant Material 4 3

# of Main Spans 0 1

Main Span

Materials: 1. 4 3 2. Length: 3 2 Span Type: 3 0

Design Type: 5 8 0 2 Structural Feature: 1. 0 4 2.

Secondary Span 1

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 2

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 3

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Substructure

Materials: 1. 4 3 2. ____ ____ Structural Feature: 0 4 Configuration: ____

HISTORICAL INFORMATION

Year Built: 1903 ca. ____ to ca. ____ Additions/Alteration Dates: ____ ca. ____ ca. ____

Basis for Dating: ☑ Documentary ☐ Physical

Explain: The bridge has a plaque.

Associated Individuals: 1. ____ 2. ____

Associated Events: 1. ____ 2. ____

Architects/Engineers: 1. W. H. Brown 2. ____

Builders: 1. Charles A. Sims & Co. 2. ____

MAJOR BIBLIOGRAPHICAL REFERENCES

Abendschein, Frederic H., "The Atglen & Susquehanna: Lancaster County's Low Grade." The Keystone, Volume 27, Number 4.Lewistown, PA Railroad Technical & Historical Society, 1994.

Messer, David, Triumph II: Philadelphia to Harrisburg, 1828-1998. Baltimore: Barnard, Roberts and Company, 1999.

PREVIOUS SURVEY, DETERMINATIONS

None

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ☐ Yes ☐ No Context(s): ____

Contributes to Potential District: ☑ Yes ☐ No District Name/Status: Enola Low Grade RR - Eligible

Explain: The Enola Low Grade Railroad was determined eligible for the National Register in 1999 and the Vintage Road Bridge is considered a contributing resource.

SURVEY INFORMATION

Survey Name/Title: Susan M. Cabot, Architectural Historian Date: October 2007

Project Name: Enola Low Grade

Organization: ASC Group, Inc. Telephone: 717-564-5705

Street and No.: 801 E. Park Drive, Suite 102

City, State: Harrisburg, PA Zip Code: 17111

Additional Survey Documentation: ____

Associated Survey Codes: ____

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

Survey Code: PA-075/#6 Tax Parcel/Other No.: _____

County: Lancaster Municipality: Bart Township

Address: Vintage Road

Historic/Other Name: Vintage Road Bridge / Atglen & Susquehanna Railroad / Low Grade

PHYSICAL DESCRIPTION:

The Vintage Road Bridge is located on Vintage Road in Bart Township, Lancaster County. It is supported by a squared block stone arch underpass with solid spandrels that transition to stone wingwalls on each side. The semi-circular entrance arches are framed by voussoirs of equal size with a keystone in the center. The arch entrance on the north side and the parapet wall above it have been braced with two iron rods and the wingwalls capped with concrete. There appears to be extensive water damage on the stonework of the underpass. Topping the bridge and forming the railway bed is a parapet wall constructed with massive limestone blocks. An iron railing at the parapet level spans either side of the railway bed above the underpass opening. The bridge was constructed in 1903 and the alterations occurred at an unknown date. The tracks have been removed on the railway bed and the area is covered with gravel. The catenaries that once carried electrical current to the tracks remain in place.

HISTORICAL NARRATIVE:

The Vintage Road Bridge is part of the Atglen and Susquehanna Railroad (A&S), perhaps better known as the Low Grade, constructed between 1903 and 1906 and covering a route from the Borough of Atglen in Chester County through Lancaster County. By way of other connecting rail lines, the Low Grade route eventually terminated on the west side of the Susquehanna River at a new rail yard in Enola, just west of Harrisburg.

In 1902 the (Pennsylvania Railroad (PRR) embarked on an "Improvement Plan" to build a double track, low grade line between Philadelphia and Harrisburg for the purpose of carrying freight only. There was a need for a safe, cost effective way to move the slower freight traffic between the cities and keep it from delaying passenger traffic on the PRR's Main Line. The A&S was part of that line and it would carry no passengers so all population centers could be avoided. The planned route made use of easy grades in the Chester Valley and the Susquehanna River valleys with cuts, fills and bridges where necessary and minimal curvature. When construction was complete there were three major steel bridges at Brandywine Creek, Martic Forge, and Safe Harbor and three massive stone bridges at Chickies Creek, Shocks Mill and Codorus Creek. All along the A&S line there were smaller bridges, overpasses, and culverts. The entire line was designed and constructed under the direction of the PRR's Chief Engineer, William H. Brown.

The Vintage Road Bridge in Bart Township is supported by an underpass that carries the A&S rail line over Vintage Road. Construction contracts for the A&S line of the Low Grade were divided between five contractors who set up headquarters in various parts of southern Lancaster County. The Charles A. Sims Company constructed the Vintage Road Bridge in 1903.

The entire Low Grade Line came into service in July 1906. The A&S portion of the Low Grade ran for 44.9 miles from Parkesburg in Chester County to Shocks Mills in Lancaster County. Eastbound the average grade was 0.03% and westbound the grade averaged 0.06% and there were no grade crossings to hold up the line's schedule or risk accidents with road traffic. The A&S successfully carried freight traffic through Lancaster County for the first third of the twentieth century; in 1936 a severe flood put the line out of service for several months. The Low Grade was included when the PRR initiated its east-west electrification project in 1937 and the A&S had motor-powered fright trains by early 1938. The Safe Harbor dam and hydroelectric station, opened in 1931, provided power for the A&S branch of the Low Grade as well as the main line of the PRR.

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The PRR merged with the New York Central in 1968 to form the Penn Central. In 1972 flood waters on the Susquehanna as a result of Hurricane Agnes weakened poorly constructed piers of the Shocks Mill Bridge causing the collapse of the center section of the bridge. It took the cash strapped Penn Central over a year to complete repairs.

In 1976 Conrail took over the freight operations of the Penn Central and Amtrak gained control of the passenger line between Philadelphia and Harrisburg as well as responsibility for distribution of the electrical power. Conrail objected to Amtrak's rates and chose to upgrade the former Reading Railroad line through the Schuylkill Valley to carry freight into Philadelphia. This decreased traffic on the Low Grade by half and in 1988 regular freight service on the Low Grade was discontinued after over eighty years of service. In 1990 Conrail began to remove many of the railroad tracks from the Low Grade line including those along the A&S branch.

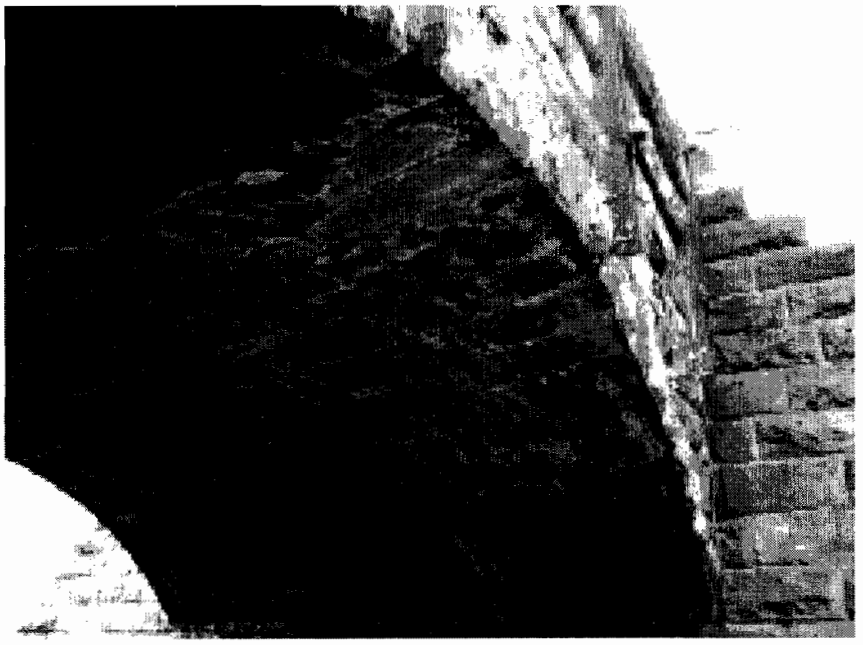


Photo 2. Interior of the arch barrel and repairs to the north arch face.

Photo 3. Rail bed with tracks removed and catenary frames in place.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM – PHOTO/SITE PLAN SHEET

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
400 North Street, Harrisburg, PA 17120-0093

Survey Code/Tax Parcel/Other No.: PA 075/#14 County: Lancaster 071
Municipality: Providence Township Address: Route 222, Church Street, Quarryville, PA 17566
Historic Name/Other Name: Church Street Bridge / Atglen & Susquehanna Railroad / Low Grade

SITE PLAN

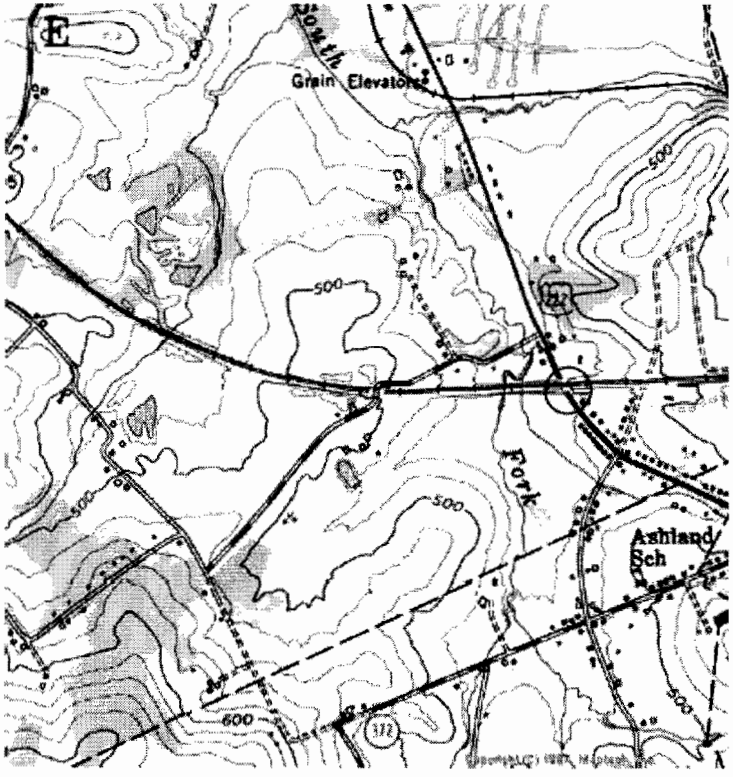
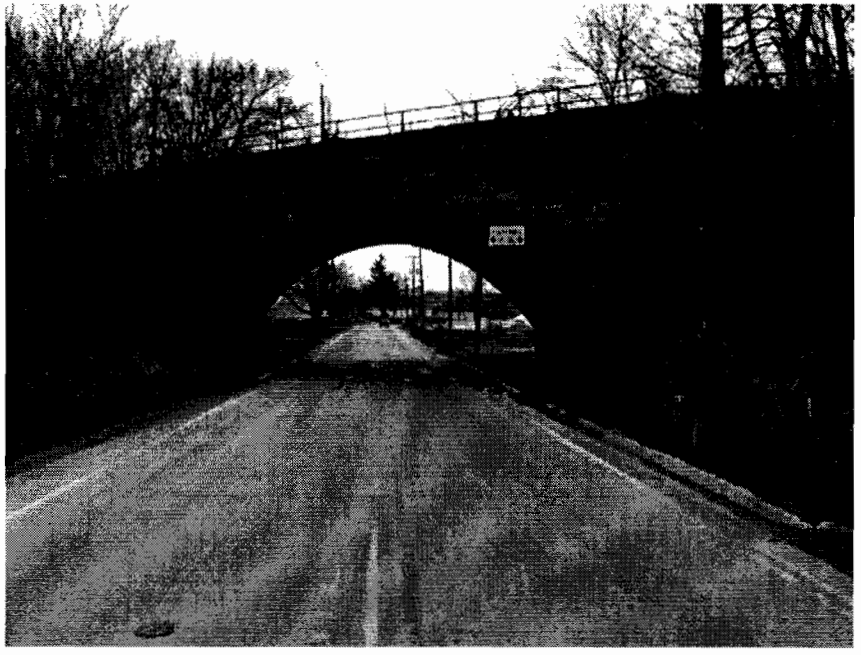


PHOTO INFORMATION

Attach Photo Here



Number	Description of View	Direction of Camera
1	Stone entrance arch of the underpass.	N
2	Interior stone arch barrel.	NE
3	Rail bed with tracks removed.	E

Photographer Name: Connie Walsh Date: April 2007
Negative Location: ASC Group, 801 E. Park Drive, Harrisburg, PA 17111

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

IDENTIFICATION AND LOCATION

Survey Code: PA 075/#14 Tax Parcel/Other No.: _____

County: 1. Lancaster 0 7 1 2. _____

Municipality: 1. Providence Township 2. _____

Street/Road: Route 222, Church Street

Crossing Over: Route 222, Church Street

Historic Name: Church Street Bridge

Other Name: Atglen & Susquehanna Railroad / Low Grade

Owner Name/Address: Norfolk Southern Corp., 3 Commercial Place, Norfolk, VA 23510

Owner Category: ☑ Private ☐ Public-local-county ☐ Public-local-municipal ☐ Public-state ☐ Public-federal

USGS Quad: 1. Quarryville 2. _____

UTM References: A. 180399104E 4416979N _____

B. _____

HISTORIC AND CURRENT FUNCTIONS

	Historic Function Category:	Subcategory:	Code:
A.	Transportation	Rail-Related	1 6 A
B.			

	Current Function Category:	Subcategory:	Code:
A.	Vacant / Not in Use		0 9 8
B.			

Particular Type: Railroad Bridge

PHYSICAL DESCRIPTION

Architectural Description: No Style 0 1

B. _____ Other: _____

# of Spans 0 1 Overall Length 4 7 Predominant Material 4 3

# of Main Spans 0 1

Main Span

Materials: 1. 4 3 2. _____ Length: _____ 4 7 Span Type: 3 0

Design Type: 5 8 0 2 Structural Feature: 1. 0 4 2. _____

Secondary Span 1

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 2

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 3

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Substructure

Materials: 1. 4 3 2. ____ ____ Structural Feature: ____ ____ Configuration: ____

HISTORICAL INFORMATION

Year Built: 1904 ca. ____ to ca. ____ Additions/Alteration Dates: ____ ca. ____ ca. ____

Basis for Dating: ☑ Documentary ☐ Physical

Explain: There is a plaque on the bridge.

Associated Individuals: 1. ____ 2. ____

Associated Events: 1. ____ 2. ____

Architects/Engineers: 1. W. H. Brown 2. ____

Builders: 1. P. McManus 2. ____

MAJOR BIBLIOGRAPHICAL REFERENCES

Abendschein, Frederic H., "The Atglen & Susquehanna: Lancaster County's Low Grade." The Keystone, Volume 27, Number 4.Lewistown, PA Railroad Technical & Historical Society, 1994.

Messer, David, Triumph II: Philadelphia to Harrisburg, 1828-1998. Baltimore: Barnard, Roberts and Company, 1999.

PREVIOUS SURVEY, DETERMINATIONS

None

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ☐ Yes ☐ No Context(s): ____

Contributes to Potential District: ☑ Yes ☐ No District Name/Status: Enola Low Grade RR - Eligible

Explain: The Enola Low Grade Railroad was determined eligible for the National Register in 1999 and the Church Street Bridge is considered a contributing resource.

SURVEY INFORMATION

Survey Name/Title: Susan M. Cabot, Architectural Historian Date: October 2007

Project Name: Enola Low Grade

Organization: ASC Group, Inc. Telephone: 717-564-5705

Street and No.: 801 E. Park Drive, Suite 102

City, State: Harrisburg, PA Zip Code: 17111

Additional Survey Documentation: ____

Associated Survey Codes: ____

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

Survey Code: PA 075/#14 Tax Parcel/Other No.: _____

County: Lancaster Municipality: Providence Township

Address: Route 222, Church Street, Quarryville, PA, 17566

Historic/Other Name: Church Street Bridge / Atglen & Susquehanna Railroad / Low Grade

PHYSICAL DESCRIPTION

The Church Street Bridge is located on Route 222, also known as Church Street, in Providence Township, Lancaster County, just north of the Borough of Quarryville. It is supported by a squared block limestone arch underpass with solid spandrels that transition to stone wingwalls on the south entrance and a wingwall and a stone abutment at the north entrance. The semi-circular entrance arches are framed by voussoirs of equal size with a center keystone. Capping the underpass and forming the railway bed is a parapet wall constructed with massive limestone blocks. There is an iron railing at the parapet level on either side of the railway bed across the underpass opening. The bridge was constructed in 1904 and has not been altered or renovated. The tracks have been removed on the railway bed and the area is covered with gravel. The catenaries that once carried electrical current to the tracks remain in place.

HISTORICAL NARRATIVE:

The Church Street Bridge is part of the Atglen and Susquehanna Railroad (A&S), perhaps better known as the Low Grade, constructed between 1903 and 1906 and covering a route from the Borough of Atglen in Chester County through Lancaster County. By way of other connecting rail lines, the Low Grade route eventually terminated on the west side of the Susquehanna River at a new rail yard in Enola, just west of Harrisburg.

In 1902 the Pennsylvania Railroad (PRR) embarked on an "Improvement Plan" to build a double track, low grade line between Philadelphia and Harrisburg for the purpose of carrying freight only. There was a need for a safe, cost effective way to move the slower freight traffic between the cities and keep it from delaying passenger traffic on the PRR's Main Line. The A&S branch was part of that line and it would carry no passengers so all population centers could be avoided. The planned route made use of easy grades in the Chester Valley and the Susquehanna River valleys with cuts, fills and bridges where necessary and minimal curvature. When construction was complete there were three major steel bridges at Brandywine Creek, Martic Forge, and Safe Harbor and three massive stone bridges at Chickies Creek, Shocks Mill and Codorus Creek. All along the A&S line there were smaller bridges, overpasses, and culverts. The entire line was designed and constructed under the direction of the PRR's Chief Engineer, William H. Brown.

The Church Street Bridge in Providence Township, just north of Quarryville Borough, carries the A&S rail line over what is now Route 222, also known as Church Street. This bridge and overpass was one of the first to be completed because a portion of the work on the A&S began in Quarryville, a midpoint in the line, and extended in both directions. Construction contracts for the A&S line of the Low Grade were divided between five contractors who set up headquarters in various parts of southern Lancaster County. The McManus Company constructed the Church Street Bridge.

The entire Low Grade Line came into service in July 1906. The A&S portion of the Low Grade ran for 44.9 miles from Parkesburg in Chester County to Shocks Mills in Lancaster County. Eastbound the average grade was 0.03% and westbound the grade averaged 0.06% and there were no grade crossings to hold up the line's schedule or risk accidents with road traffic. The A&S successfully carried freight traffic through Lancaster County for the first third of the twentieth century; in 1936 a severe flood put the line out of service for several months. The Low Grade was included when the PRR initiated its east-west electrification project in 1937 and the A&S had motor-powered fright trains by early 1938. The Safe Harbor dam and hydroelectric station, opened in 1931, provided power for the A&S branch of the Low Grade as well as the main line of the PRR.

As the Low Grade prospered the freight yard at Enola continued to grow. By the beginning of World War II it had over one hundred miles of track and an average train length of eighty-nine cars. Freight traffic increased during World War II but fell twenty percent below pre-war figures in the late 1940s.

The PRR merged with the New York Central in 1968 to form the Penn Central. In 1972 flood waters on the Susquehanna as a result of Hurricane Agnes weakened poorly constructed piers of the Shocks Mill Bridge causing the collapse of the center section of the bridge. It took the cash strapped Penn Central over a year to complete repairs.

In 1976 Conrail took over the freight operations of the Penn Central and Amtrak gained control of the passenger line between Philadelphia and Harrisburg as well as responsibility for distribution of the electrical power. Conrail objected to Amtrak's rates and chose to upgrade the former Reading Railroad line through the Schuylkill Valley to carry freight into Philadelphia. This decreased traffic on the Low Grade by half and in 1988 regular freight service on the Low Grade was discontinued after over eighty years of service. In 1990 Conrail began to remove many of the railroad tracks from the Low Grade line including those along the A&S branch.

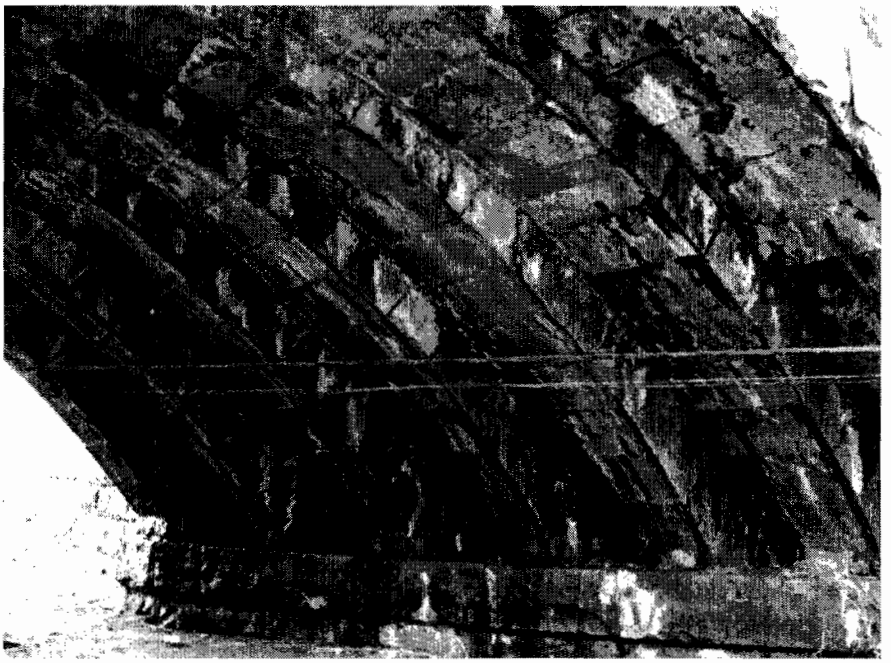


Photo 2. Interior of the arch barrel built of squared stone blocks.

Photo 3. Rail bed with the tracks removed and catenary frames in place.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM – PHOTO/SITE PLAN SHEET

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
400 North Street, Harrisburg, PA 17120-0093

Survey Code/Tax Parcel/Other No.: PA 075/#23 County: Lancaster 071
Municipality: Providence Township Address: Route 272 North, Providence Road
Historic Name/Other Name: Providence Road North Bridge / Atglen & Susquehanna Railroad / Low Grade

SITE PLAN

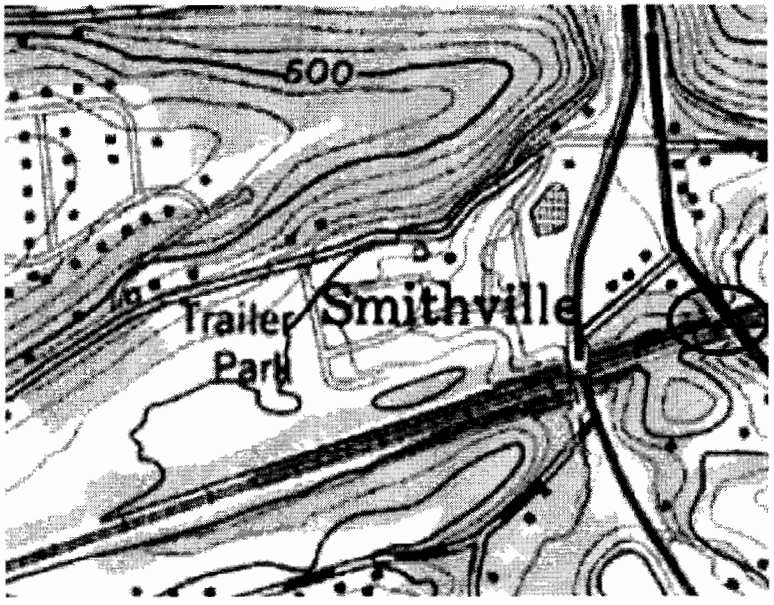


PHOTO INFORMATION

Attach Photo Here

Number	Description of View	Direction of Camera
1	South entrance arch with repairs.	N
2	Interior of the arch barrel with concrete repairs.	NW

Photographer Name: Connie Walsh Date: April 2007
Negative Location: ASC Group, 801 E. Park Drive, Harrisburg, PA 17111

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

IDENTIFICATION AND LOCATION

Survey Code: PA 075/#23 Tax Parcel/Other No.: _____

County: 1. Lancaster 0 7 1 2. _____

Municipality: 1. Providence Township 2. _____

Street/Road: Route 272 North, Providence Road

Crossing Over: Route 272 North

Historic Name: Providence Road North Bridge

Other Name: Atglen & Susquehanna Railroad / Low Grade

Owner Name/Address: Norfolk Southern Corp., 3 Commercial Place, Norfolk, VA 23510

Owner Category: ☑ Private ☐ Public-local-county ☐ Public-local-municipal ☐ Public-state ☐ Public-federal

USGS Quad: 1. Conestoga 2. _____

UTM References: A. 180393038E 4420036N _____ _____
B. _____ _____ _____ _____

HISTORIC AND CURRENT FUNCTIONS

	Historic Function Category:	Subcategory:	Code:
A.	Transportation	Rail-Related	1 6 A
B.			

	Current Function Category:	Subcategory:	Code:
A.	Vacant / Not in Use		0 9 8
B.			

Particular Type: Railroad Bridge

PHYSICAL DESCRIPTION

Architectural Description: No Style 0 1

B. _____ Other: _____

# of Spans 0 1 Overall Length 3 9 Predominant Material 4 3

# of Main Spans 0 1

Main Span

Materials: 1. 4 3 2. 6 5 Length: 3 9 Span Type: 3 0

Design Type: 5 8 0 2 Structural Feature: 1. 0 4 2. _____

Secondary Span 1

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 2

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 3

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Substructure

Materials: 1. 4 3 2. 6 5 Structural Feature: ____ ____ Configuration: ____

HISTORICAL INFORMATION

Year Built: 1918 ca. ____ to ca. ____ Additions/Alteration Dates: 1954 ca. ____ ca. ____

Basis for Dating: ☑ Documentary ☐ Physical

Explain: The date is cut into the stone of the bridge and the reconstruction date is recorded in Conrail records.

Associated Individuals: 1. ____ 2. ____

Associated Events: 1. ____ 2. ____

Architects/Engineers: 1. W. H. Brown 2. ____

Builders: 1. Unknown 2. ____

MAJOR BIBLIOGRAPHICAL REFERENCES

Abendschein, Frederic H., "The Atglen & Susquehanna: Lancaster County's Low Grade." The Keystone, Volume 27, Number 4.Lewistown, PA Railroad Technical & Historical Society, 1994.

Messer, David, Triumph II: Philadelphia to Harrisburg, 1828-1998. Baltimore: Barnard, Roberts and Company, 1999.

PREVIOUS SURVEY, DETERMINATIONS

None

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ☐ Yes ☐ No Context(s): ____

Contributes to Potential District: ☑ Yes ☐ No District Name/Status: Enola Low Grade RR - Eligible

Explain: The Enola Low Grade Railroad was determined eligible for the National Register in 1999 and the Providence Road North Bridge is considered a contributing resource.

SURVEY INFORMATION

Survey Name/Title: Susan M. Cabot, Architectural Historian Date: October 2007

Project Name: Enola Low Grade

Organization: ASC Group, Inc. Telephone: 717-564-5705

Street and No.: 801 E. Park Drive, Suite 102

City, State: Harrisburg, PA Zip Code: 17111

Additional Survey Documentation: ____

Associated Survey Codes: ____

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

Survey Code: PA 075/#23 Tax Parcel/Other No.: _____

County: Lancaster Municipality: Providence Township

Address: Route 272 North, Providence Road

Historic/Other Name: Providence Road North Bridge / Atglen & Susquehanna Railroad / Low Grade

PHYSICAL DESCRIPTION:

The Providence Road Bridge North is located on Route 272 North, also known as Providence Road in Providence Township, Lancaster County. The bridge is supported by a stone arch underpass with stone wingwalls on each side. The Providence Road Bridge North was built after the opening of the Low Grade line when State Route 272 was directionally divided in ca. 1918. The bridge was repaired in 1954 when concrete was added to the south face and the adjoining wingwalls. At the same time or possibly later a steel frame retaining wall was added to the east wing wall and fill area on the south elevation (Photo 1.) These repairs obscure the original design of the south entrance arch and give this elevation an awkward appearance. The semi-circular north entrance arch is framed by voussoirs of equal size with a center keystone. This elevation of the squared stone underpass has a solid spandrel that transitions to stone wingwalls. There is a large amount of fill material between the top of the underpass and the railway bed above it. The tracks have been removed from the railway bed.

HISTORICAL NARRATIVE:

The Providence Road North Bridge is part of the Atglen and Susquehanna Railroad (A&S), perhaps better known as the Low Grade, constructed between 1903 and 1906 and covering a route from the Borough of Atglen in Chester County through Lancaster County. By way of other connecting rail lines, the Low Grade route eventually terminated on the west side of the Susquehanna River at a new rail yard in Enola, just west of Harrisburg.

In 1902 the Pennsylvania Railroad (PRR) embarked on an "Improvement Plan" to build a double track, low grade line between Philadelphia and Harrisburg for the purpose of carrying freight only. There was a need for a safe, cost effective way to move the slower freight traffic between the cities and keep it from delaying passenger traffic on the PRR's Main Line. The A&S was part of that line and it would carry no passengers so all population centers could be avoided. The planned route made use of easy grades in the Chester Valley and the Susquehanna River valleys with cuts, fills and bridges where necessary and minimal curvature. When construction was complete there were three major steel bridges at Brandywine Creek, Martic Forge, and Safe Harbor and three massive stone bridges at Chickies Creek, Shocks Mill and Codorus Creek. All along the A&S line there were smaller bridges, overpasses, and culverts. The entire line was designed and constructed under the direction of the PRR's Chief Engineer, William H. Brown.

The Providence Road North Bridge in Providence Township is supported by an underpass that carries the A&S rail line over what is now Route 272 North, also known as Providence Road. Construction contracts for the A&S line of the Low Grade were divided between five contractors who set up headquarters in various parts of southern Lancaster County. This bridge was constructed in 1918 after completion of the A&S in order to accommodate the directionally divided Route 272.

The entire Low Grade Line came into service in July 1906. The A&S portion of the Low Grade ran for 44.9 miles from Parkesburg in Chester County to Shocks Mills in Lancaster County. Eastbound the average grade was 0.03% and westbound the grade averaged 0.06% and there were no grade crossings to hold up the line's schedule or risk accidents with road traffic. The A&S successfully carried freight traffic through Lancaster County for the first third of the twentieth century; in 1936 a severe flood put the line out of service for several months. The Low Grade was included when the PRR initiated its east-west electrification project in 1937 and the A&S had motor-powered fright trains by early 1938. The Safe Harbor dam and hydroelectric station, opened in 1931, provided power for the A&S branch of the Low Grade as well as the main line of the PRR.

As the Low Grade prospered the freight yard at Enola continued to grow. By the beginning of World War II it had over one hundred miles of track and an average train length of eighty-nine cars. Freight traffic increased during World War II but fell twenty percent below pre-war figures in the late 1940s.

The PRR merged with the New York Central in 1968 to form the Penn Central. In 1972 flood waters on the Susquehanna as a result of Hurricane Agnes weakened poorly constructed piers of the Shocks Mill Bridge causing the collapse of the center section of the bridge. It took the cash strapped Penn Central took over a year to complete repairs.

In 1976 Conrail took over the freight operations of the Penn Central and Amtrak gained control of the passenger line between Philadelphia and Harrisburg as well as responsibility for distribution of the electrical power. Conrail objected to Amtrak's rates and chose to upgrade the former Reading Railroad line through the Schuylkill Valley to carry freight into Philadelphia. This decreased traffic on the Low Grade by half and in 1988 regular freight service on the Low Grade was discontinued after over eighty years of service. In 1990 Conrail began to remove many of the railroad tracks from the Low Grade line including those along the A&S branch.

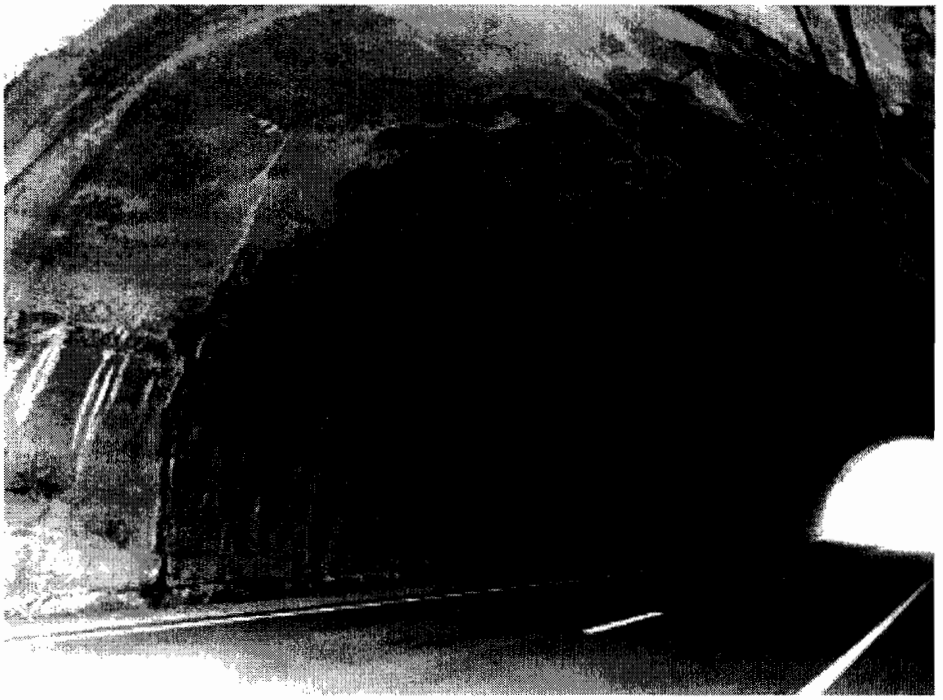


Photo 2. Interior of the arch barrel showing later concrete repairs at the face.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM – PHOTO/SITE PLAN SHEET

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
400 North Street, Harrisburg, PA 17120-0093

Survey Code/Tax Parcel/Other No.: PA 075/#24 County: Lancaster 071
Municipality: Providence Township Address: Route 272 South, Providence Road
Historic Name/Other Name: Providence Road South Bridge / Atglen & Susquehanna Railroad / Low Grade

SITE PLAN

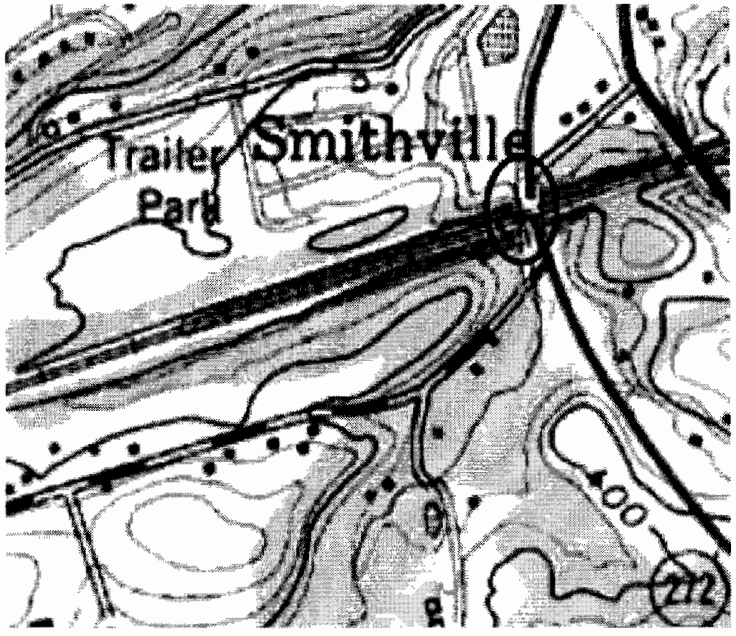
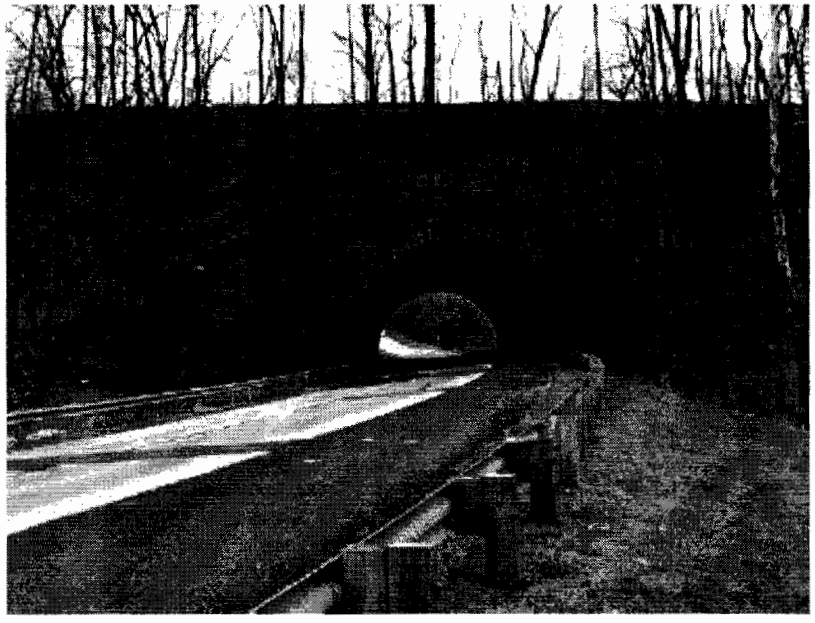


PHOTO INFORMATION

Attach Photo Here



Number	Description of View	Direction of Camera
1	North entrance arch and wingwalls.	SE
2	Interior of the arch barrel.	SE

Photographer Name: Connie Walsh Date: April 2007
Negative Location: ASC Group, 801 E. Park Drive, Harrisburg, PA 17110

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

IDENTIFICATION AND LOCATION

Survey Code: PA 075/#24 Tax Parcel/Other No.: _____

County: 1. Lancaster 0 7 1 2. _____

Municipality: 1. Providence Township 2. _____

Street/Road: Route 272 South, Providence Road

Crossing Over: Route 272 South

Historic Name: Providence Road South Bridge

Other Name: Atglen & Susquehanna Railroad / Low Grade

Owner Name/Address: Norfolk Southern Corp., 3 Commercial Place, Norfolk, VA 23510

Owner Category: ☑ Private ☐ Public-local-county ☐ Public-local-municipal ☐ Public-state ☐ Public-federal

USGS Quad: 1. Conestoga 2. _____

UTM References: A. 180392831E 4419962N _____ _____
B. _____ _____ _____ _____

HISTORIC AND CURRENT FUNCTIONS

	Historic Function Category:	Subcategory:	Code:
A.	Transportation	Rail-Related	1 6 A
B.			

	Current Function Category:	Subcategory:	Code:
A.	Vacant / Not in Use		0 9 8
B.			

Particular Type: Railroad Bridge

PHYSICAL DESCRIPTION

Architectural Description: No Style 0 1

B. _____ Other: _____

# of Spans 0 1 Overall Length 5 0 Predominant Material 4 3

# of Main Spans 0 1

Main Span

Materials: 1. 4 3 2. _____ Length: 5 0 Span Type: 3 0

Design Type: 5 8 0 2 Structural Feature: 1. 0 4 2. _____

Secondary Span 1

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 2

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 3

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Substructure

Materials: 1. 4 3 2. ____ ____ Structural Feature: ____ ____ Configuration: ____

HISTORICAL INFORMATION

Year Built: ____ ca. 1904 to ca. 1906 Additions/Alteration Dates: ____ ca. ____ ca. ____

Basis for Dating: ☑ Documentary ☐ Physical

Explain: The Atglen & Susquehanna branch was constructed between 1903 and 1906.

Associated Individuals: 1. ____ 2. ____

Associated Events: 1. ____ 2. ____

Architects/Engineers: 1. W. H. Brown 2. ____

Builders: 1. Unknown 2. ____

MAJOR BIBLIOGRAPHICAL REFERENCES

Abendschein, Frederic H., "The Atglen & Susquehanna: Lancaster County's Low Grade." The Keystone, Volume 27, Number 4.Lewistown, PA Railroad Technical & Historical Society, 1994.

Messer, David, Triumph II: Philadelphia to Harrisburg, 1828-1998. Baltimore: Barnard, Roberts and Company, 1999.

PREVIOUS SURVEY, DETERMINATIONS

None

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ☐ Yes ☐ No Context(s): ____

Contributes to Potential District: ☑ Yes ☐ No District Name/Status: Enola Low Grade RR - Eligible

Explain: The Enola Low Grade Railroad was determined eligible for the National Register in 1999 and the Providence Road South Bridge is considered a contributing resource.

SURVEY INFORMATION

Survey Name/Title: Susan M. Cabot, Architectural Historian Date: October 2007

Project Name: Enola Low Grade

Organization: ASC Group, Inc. Telephone: 717-564-5705

Street and No.: 801 E. Park Drive, Suite 102

City, State: Harrisburg, PA Zip Code: 17110

Additional Survey Documentation: ____

Associated Survey Codes: ____

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

Survey Code: PA 075/#24 Tax Parcel/Other No.: _____

County: Lancaster Municipality: Providence Township

Address: Route 272 South, Providence Road

Historic/Other Name: Providence Road Bridge South / Atglen & Susquehanna Railroad/ Low Grade

PHYSICAL DESCRIPTION:

The Providence Road Bridge South is located on Route 272 South, also known as Providence Road in Providence Township, Lancaster County. The bridge is supported by a stone arch underpass with stone wingwalls on each side. The semi-circular entrance arches are framed by voussoirs of equal size with a center keystone. The squared stone underpass has solid spandrels that transition to stone wingwalls, with one side slightly longer on each elevation. There is a large amount of fill material between the top of the underpass and the railway bed above it. The tracks have been removed from the railway bed.

HISTORICAL NARRATIVE:

The Providence Road South Bridge is part of the Atglen and Susquehanna Railroad (A&S), perhaps better known as the Low Grade, constructed between 1903 and 1906 and covering a route from the Borough of Atglen in Chester County through Lancaster County. By way of other connecting rail lines, the Low Grade route eventually terminated on the west side of the Susquehanna River at a new rail yard in Enola, just west of Harrisburg.

In 1902 the Pennsylvania Railroad (PRR) embarked on an "Improvement Plan" to build a double track, low grade line between Philadelphia and Harrisburg for the purpose of carrying freight only. There was a need for a safe, cost effective way to move the slower freight traffic between the cities and keep it from delaying passenger traffic on the PRR's Main Line. The A&S was part of that line and it would carry no passengers so all population centers could be avoided. The planned route made use of easy grades in the Chester Valley and the Susquehanna River valleys with cuts, fills and bridges where necessary and minimal curvature. When construction was complete there were three major steel bridges at Brandywine Creek, Martic Forge, and Safe Harbor and three massive stone bridges at Chickies Creek, Shocks Mill and Codorus Creek. All along the A&S line there were smaller bridges, overpasses, and culverts. The entire line was designed and constructed under the direction of the PRR's Chief Engineer, William H. Brown.

The Providence Road South Bridge in Providence Township is supported by an underpass that carries the A&S rail line over what is now Route 272 South, also known as Providence Road. Construction contracts for the A&S line of the Low Grade were divided between five contractors who set up headquarters in various parts of southern Lancaster County.

The entire Low Grade Line came into service in July 1906. The A&S portion of the Low Grade ran for 44.9 miles from Parkesburg in Chester County to Shocks Mills in Lancaster County. Eastbound the average grade was 0.03% and westbound the grade averaged 0.06% and there were no grade crossings to hold up the line's schedule or risk accidents with road traffic. The A&S successfully carried freight traffic through Lancaster County for the first third of the twentieth century; in 1936 a severe flood put the line out of service for several months. The Low Grade was included when the PRR initiated its east-west electrification project in 1937 and the A&S had motor-powered fright trains by early 1938. The Safe Harbor dam and hydroelectric station, opened in 1931, provided power for the A&S branch of the Low Grade as well as the main line of the PRR.

As the Low Grade prospered the freight yard at Enola continued to grow. By the beginning of World War II it had over one hundred miles of track and an average train length of eighty-nine cars. Freight traffic increased during World War II but fell twenty percent below pre-war figures in the late 1940s.

The PRR merged with the New York Central in 1968 to form the Penn Central. In 1972 flood waters on the Susquehanna as a result of Hurricane Agnes weakened poorly constructed piers of the Shocks Mill Bridge causing the collapse of the center section of the bridge. It took the cash strapped Penn Central over a year to complete repairs.

In 1976 Conrail took over the freight operations of the Penn Central and Amtrak gained control of the passenger line between Philadelphia and Harrisburg as well as responsibility for distribution of the electrical power. Conrail objected to Amtrak's rates and chose to upgrade the former Reading Railroad line through the Schuylkill Valley to carry freight into Philadelphia. This decreased traffic on the Low Grade by half and in 1988 regular freight service on the Low Grade was discontinued after over eighty years of service. In 1990 Conrail began to remove many of the railroad tracks from the Low Grade line including those along the A&S branch.

Photo 2. Interior of the arch barrel.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM – PHOTO/SITE PLAN SHEET

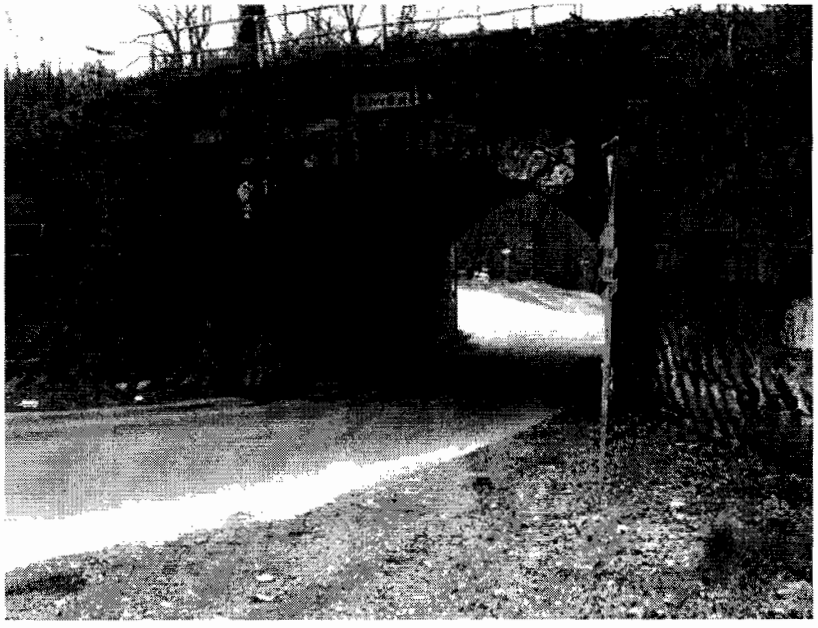
Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
400 North Street, Harrisburg, PA 17120-0093

Survey Code/Tax Parcel/Other No.: PA 075/#27 County: Lancaster 071
Municipality: Martic Township Address: Route 324, Marticville Road, Pequea, PA 17565
Historic Name/Other Name: Marticville Road Bridge / Atglen & Susquehanna Railroad / Low Grade

SITE PLAN

PHOTO INFORMATION

Attach Photo Here



Number	Description of View	Direction of Camera
1	North stone entrance arch.	SE
2	Interior of the stone arch barrel.	W
3	Rail bed with tracks removed and catenary frames in place.	SE

Photographer Name: Connie Walsh Date: April 2007
Negative Location: ASC Group, 801 E. Park Drive, Harrisburg, PA 17111

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

IDENTIFICATION AND LOCATION

Survey Code: PA 075/#27 Tax Parcel/Other No.: _____

County: 1. Lancaster 0 7 1 2. _____ _ _ _

Municipality: 1. Martic Township 2. _____

Street/Road: Route 324, Marticville Road

Crossing Over: Route 324, Marticville Road

Historic Name: Marticville Road Bridge

Other Name: Atglen & Susquehanna Railroad / Low Grade

Owner Name/Address: Norfolk Southern Corp., 3 Commercial Place, Norfolk, VA 23510

Owner Category: ☑ Private ☐ Public-local-county ☐ Public-local-municipal ☐ Public-state ☐ Public-federal

USGS Quad: 1. Conestoga 2. _____

UTM References: A. 180387567E 4418362N _____ _____
B. _____ _____ _____ _____

HISTORIC AND CURRENT FUNCTIONS

	Historic Function Category:	Subcategory:	Code:
A.	Transportation	Rail-Related	1 6 A
B.			

	Current Function Category:	Subcategory:	Code:
A.	Vacant / Not in Use		0 9 8
B.			

Particular Type: Railroad Bridge

PHYSICAL DESCRIPTION

Architectural Description: No Style 0 1

B. _____ _ _ Other: _____ _ _

# of Spans 0 1 Overall Length 2 4 Predominant Material 4 3

# of Main Spans 0 1

Main Span

Materials: 1. 4 3 2. _ _ Length: _ 2 4 _ Span Type: 3 0

Design Type: 5 8 0 2 _ Structural Feature: 1. 0 4 2. _ _

Secondary Span 1

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 2

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 3

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Substructure

Materials: 1. 4 3 2. ____ ____ Structural Feature: ____ ____ Configuration: ____

HISTORICAL INFORMATION

Year Built: 1905 ca. ____ to ca. ____ Additions/Alteration Dates: 1916 ca. ____ ca. ____

Basis for Dating: ☑ Documentary ☐ Physical

Explain: The bridge has a plaque with the original date and Conrail / Norfolk-Southern records indicate the bridge was rebuilt in 1916.

Associated Individuals: 1. ____ 2. ____

Associated Events: 1. ____ 2. ____

Architects/Engineers: 1. W. H. Brown 2. ____

Builders: 1. H. S. Kerbaugh, Inc. 2. ____

MAJOR BIBLIOGRAPHICAL REFERENCES

Abendschein, Frederic H., "The Atglen & Susquehanna: Lancaster County's Low Grade." The Keystone, Volume 27, Number 4.Lewistown, PA Railroad Technical & Historical Society, 1994.

Messer, David, Triumph II: Philadelphia to Harrisburg, 1828-1998. Baltimore: Barnard, Roberts and Company, 1999.

PREVIOUS SURVEY, DETERMINATIONS

None

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ☐ Yes ☐ No Context(s): ____

Contributes to Potential District: ☑ Yes ☐ No District Name/Status: Enola Low Grade RR - Eligible

Explain: The Enola Low Grade Railroad was determined eligible for the National Register in 1999 and the Marticville Road Bridge is considered a contributing resource.

SURVEY INFORMATION

Survey Name/Title: Susan M. Cabot, Architectural Historian Date: October 2007

Project Name: Enola Low Grade

Organization: ASC Group, Inc. Telephone: 717-564-5705

Street and No.: 801 E. Park Drive, Suite 102

City, State: Harrisburg, PA Zip Code: 17111

Additional Survey Documentation: ____

Associated Survey Codes: ____

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

Survey Code: PA 075/#27 Tax Parcel/Other No.: _____

County: Lancaster Municipality: Martic Township

Address: Route 324, Marticville Road, Pequea, PA 17565

Historic/Other Name: Marticville Road Bridge / Atglen & Susquehanna Railroad / Low Grade

PHYSICAL DESCRIPTION:

The Marticville Road Bridge is located on Route 324, also known as Marticville Road in Martic Township, Lancaster County. The bridge is supported by a limestone arch underpass with stone wingwalls on each side. The semi-circular entrance arches are framed by voussoirs of equal size with a center keystone. The arch on the north side has been reinforced with concrete. The squared stone underpass has solid spandrels that transition to stone wingwalls. Capping the underpass and forming the railway bed is a parapet wall constructed with massive limestone blocks. There is an iron railing at the parapet level on either side of the railway bed over the underpass. The bridge was constructed in 1905 and reconstructed in 1916. The tracks have been removed from the railway bed and the area is covered with gravel. The framework of catenaries that once carried electrical current to the tracks remain in place.

HISTORICAL NARRATIVE:

The Marticville Road Bridge is part of the Atglen and Susquehanna Railroad (A&S), perhaps better known as the Low Grade, constructed between 1903 and 1906 and covering a route from the Borough of Atglen in Chester County through Lancaster County. By way of other connecting rail lines, the Low Grade route eventually terminated on the west side of the Susquehanna River at a new rail yard in Enola, just west of Harrisburg.

In 1902 the Pennsylvania Railroad (PRR) embarked on an "Improvement Plan" to build a double track, low grade line between Philadelphia and Harrisburg for the purpose of carrying freight only. There was a need for a safe, cost effective way to move the slower freight traffic between the cities and keep it from delaying passenger traffic on the PRR's Main Line. The A&S branch was part of that line and it would carry no passengers so all population centers could be avoided. The planned route made use of easy grades in the Chester Valley and the Susquehanna River valleys with cuts, fills and bridges where necessary and minimal curvature. When construction was complete there were three major steel bridges at Brandywine Creek, Martic Forge, and Safe Harbor and three massive stone bridges at Chickies Creek, Shocks Mill and Codorus Creek. All along the A&S line there were smaller bridges, overpasses, and culverts. The entire line was designed and constructed under the direction of the PRR's Chief Engineer, William H. Brown.

The Marticville Road Bridge in Martic Township is an overpass that supports the A&S rail line over what is now Route 324, also known as Marticville Road. Construction contracts for the A&S line of the Low Grade were divided between five contractors who set up headquarters in various parts of southern Lancaster County. The H. S. Kerbaugh Company constructed the Marticville Road Bridge in Martic Township.

The entire Low Grade Line came into service in July 1906. The A&S portion of the Low Grade ran for 44.9 miles from Parkesburg in Chester County to Shocks Mills in Lancaster County. Eastbound the average grade was 0.03% and westbound the grade averaged 0.06% and there were no grade crossings to hold up the line's schedule or risk accidents with road traffic. The A&S successfully carried freight traffic through Lancaster County for the first third of the twentieth century; in 1936 a severe flood put the line out of service for several months. The Low Grade was included when the PRR initiated its east-west electrification project in 1937 and the A&S had motor-powered fright trains by early 1938. The Safe Harbor dam and hydroelectric station, opened in 1931, provided power for the A&S branch of the Low Grade as well as the main line of the PRR.

As the Low Grade prospered the freight yard at Enola continued to grow. By the beginning of World War II it had over one hundred miles of track and an average train length of eighty-nine cars. Freight traffic increased during World War II but fell twenty percent below pre-war figures in the late 1940s.

The PRR merged with the New York Central in 1968 to form the Penn Central. In 1972 flood waters on the Susquehanna as a result of Hurricane Agnes weakened poorly constructed piers of the Shocks Mill Bridge causing the center section of the bridge to collapse. It took the cash strapped Penn Central over a year to complete repairs.

In 1976 Conrail took over the freight operations of the Penn Central and Amtrak gained control of the passenger line between Philadelphia and Harrisburg as well as responsibility for distribution of the electrical power. Conrail objected to Amtrak's rates and chose to upgrade the former Reading Railroad line through the Schuylkill Valley to carry freight into Philadelphia. This decreased traffic on the Low Grade by half and in 1988 regular freight service on the Low Grade was discontinued after over eighty years of service. In 1990 Conrail began to remove many of the railroad tracks from the Low Grade line including those along the A&S branch.

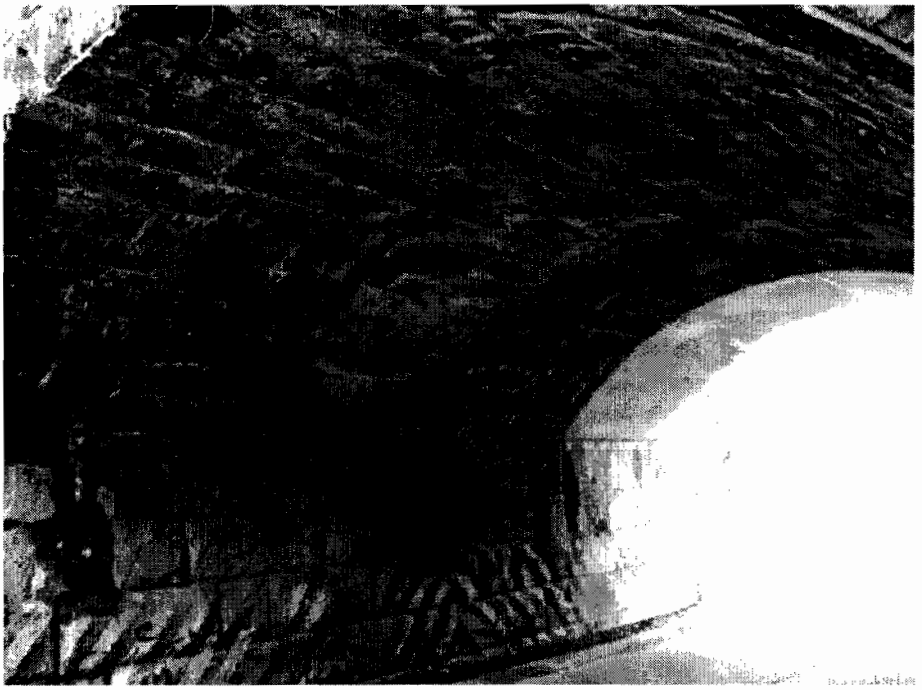


Photo 2. Interior of the stone arch barrel of the underpass.

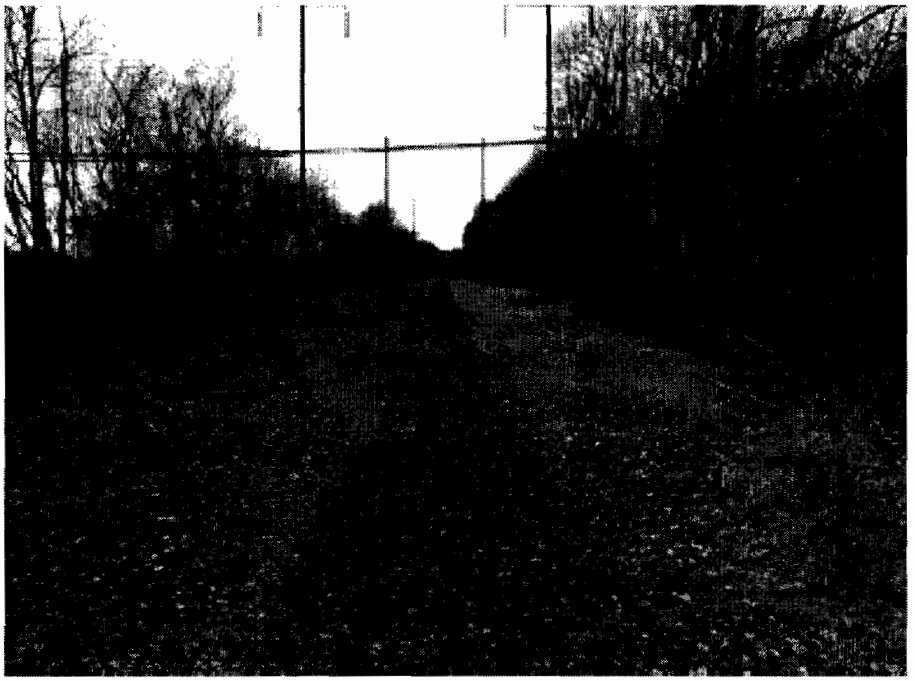


Photo 3. Rail bed with tracks removed and catenary frames in place.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM – PHOTO/SITE PLAN SHEET

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
400 North Street, Harrisburg, PA 17120-0093

Survey Code/Tax Parcel/Other No.: PA 075/#28 County: Lancaster 071
Municipality: Martic / Conestoga Townships Address: River Road
Historic Name/Other Name: Martic Forge Bridge / Atglen & Susquehanna Railroad / Low Grade

SITE PLAN

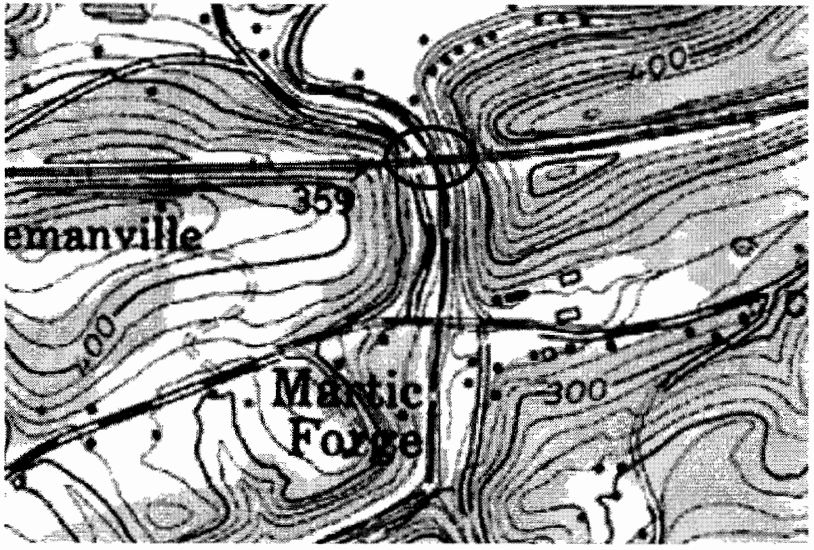
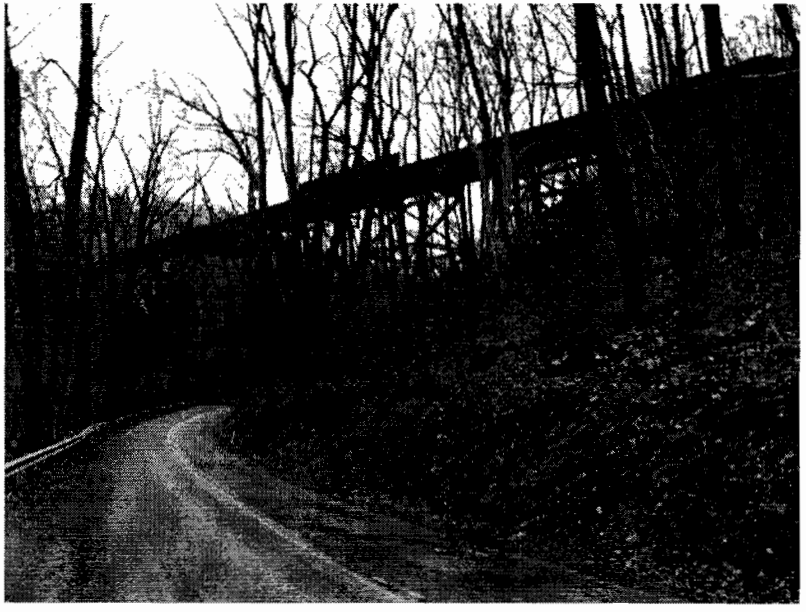


PHOTO INFORMATION

Attach Photo Here



Number	Description of View	Direction of Camera
1	West side of the bridge.	E
2	Truss on the south side of Pequea Creek.	SW
3	Inverted deck truss and truss on the north side of the creek.	N

Photographer Name: Connie Walsh Date: April 2007
Location: ASC Group, 801 E. Park Drive, Harrisburg, PA 17111

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

IDENTIFICATION AND LOCATION

Survey Code: PA 075/#28 Tax Parcel/Other No.: _____

County: 1. Lancaster 0 7 1 2. _____

Municipality: 1. Martic Township 2. Conestoga Township

Street/Road: River Road

Crossing Over: Pequea Creek

Historic Name: Martic Forge Bridge

Other Name: Atglen & Susquehanna Railroad / Low Grade

Owner Name/Address: Norfolk Southern Corp., 3 Commercial Place, Norfolk, VA 23510

Owner Category: ☑ Private ☐ Public-local-county ☐ Public-local-municipal ☐ Public-state ☐ Public-federal

USGS Quad: 1. Conestoga 2. _____

UTM References: A. 180386432E 4418168N _____
B. _____ _____ _____

HISTORIC AND CURRENT FUNCTIONS

	Historic Function Category:	Subcategory:	Code:
A.	Transportation	Rail-Related	1 6 A
B.			

	Current Function Category:	Subcategory:	Code:
A.	Vacant / Not in Use		0 9 8
B.			

Particular Type: Railroad Bridge

PHYSICAL DESCRIPTION

Architectural Description: No Style 0 1

B. _____ Other: _____

# of Spans 0 6 Overall Length 588 feet Predominant Material 5 6

# of Main Spans _____

Main Span

Materials: 1. 5 6 2. 4 3 Length: 5 8 8 Span Type: 7 0

Design Type: 6 4 1 1 Structural Feature: 1. 0 2 2. _____

Secondary Span 1

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 2

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 3

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Substructure

Materials: 1. 5 6 2. 4 3 Structural Feature: 0 2 Configuration: 1

HISTORICAL INFORMATION

Year Built: 1905 ca. ____ to ca. ____ Additions/Alteration Dates: 1959 ca. ____ ca. ____

Basis for Dating: ☑ Documentary ☐ Physical

Explain: The bridge has a plaque and the rehabilitation date is from Conrail and Norfolk/Southern records.

Associated Individuals: 1. ____ 2. ____

Associated Events: 1. ____ 2. ____

Architects/Engineers: 1. W. H. Brown 2. ____

Builders: 1. H.S. Kerbaugh, Inc. 2. ____

MAJOR BIBLIOGRAPHICAL REFERENCES

Abendschein, Frederic H., "The Atglen & Susquehanna: Lancaster County's Low Grade." The Keystone, Volume 27, Number 4.Lewistown, PA Railroad Technical & Historical Society, 1994.

Messer, David, Triumph II: Philadelphia to Harrisburg, 1828-1998. Baltimore: Barnard, Roberts and Company, 1999.

PREVIOUS SURVEY, DETERMINATIONS

None

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ☐ Yes ☐ No Context(s): ____

Contributes to Potential District: ☑ Yes ☐ No District Name/Status: Enola Low Grade RR - Eligible

Explain: The Enola Low Grade Railroad was determined eligible for the National Register in 1999 and the Martic Forge Bridge is considered a contributing resource.

SURVEY INFORMATION

Survey Name/Title: Susan M. Cabot, Architectural Historian Date: October 2007

Project Name: Enola Low Grade

Organization: ASC Group, Inc. Telephone: 717-564-5705

Street and No.: 801 E. Park Drive, Suite 102

City, State: Harrisburg, PA Zip Code: 17111

Additional Survey Documentation: ____

Associated Survey Codes: ____

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

Survey Code: PA 075/#28 Tax Parcel/Other No.: _____

County: Lancaster Municipality: Martic / Conestoga Townships

Address: River Road

Historic/Other Name: Martic Forge Bridge / Atglen & Susquehanna Railroad / Low Grade

PHYSICAL DESCRIPTION:

The Martic Forge Bridge spans Pequea Creek which forms the boundary between Martic Township and Conestoga Township in southern Lancaster County. The six span bridge was constructed with steel deck plate girders on high bents with an inverted center deck truss span over the creek. The trusses feature intricate riveted girders and were placed on massive stone piers. The bridge is five hundred and eighty eight feet long and just under one hundred and fifty feet high. The Martic Forge Bridge was built in 1905 by the H.S. Kerbaugh Company and rehabilitated in 1959.

Along the north side of Pequea Creek were the tracks of the Pequea & Millersville trolley line which was used for construction access. The Pennsylvania Steel Company of Steelton, a subsidiary of the Pennsylvania Railroad, fabricated the materials for the Martic Forge Bridge.

HISTORICAL NARRATIVE:

The Martic Forge Bridge is part of the Atglen and Susquehanna Railroad (A&S), perhaps better known as the Low Grade, constructed between 1903 and 1906 and covering a route from the Borough of Atglen in Chester County through Lancaster County. By way of other connecting rail lines, the Low Grade route eventually terminated on the west side of the Susquehanna River at a new rail yard in Enola, just west of Harrisburg.

In 1902 the PRR embarked on an "Improvement Plan" to build a double track, low grade line between Philadelphia and Harrisburg for the purpose of carrying freight only. There was a need for a safe, cost effective way to move the slower freight traffic between the cities and keep it from delaying passenger traffic on the PRR's Main Line. The A&S was part of that line and it would carry no passengers so all population centers could be avoided. The planned route made use of easy grades in the Chester Valley and the Susquehanna River valleys with cuts, fills and bridges where necessary and minimal curvature. When construction was complete there were three major steel bridges at Brandywine Creek, Martic Forge, and Safe Harbor and three massive stone bridges at Chickies Creek, Shocks Mill and Codorus Creek. All along the A&S line there were smaller bridges, overpasses, and culverts. The entire line was designed and constructed under the direction of the PRR's Chief Engineer, William H. Brown.

The Martic Forge Bridge in Martic and Conestoga Townships was one of the three steel trestle bridges on an the A&S rail line. Construction contracts for the A&S line of the Low Grade were divided between five contractors who set up headquarters in various parts of southern Lancaster County. The H. S. Kerbaugh Company constructed the Martic Forge Bridge over the Pequea Creek in 1905.

The entire Low Grade Line came into service in July 1906. The A&S portion of the Low Grade ran for 44.9 miles from Parkesburg in Chester County to Shocks Mills in Lancaster County. Eastbound the average grade was 0.03% and westbound the grade averaged 0.06% and there were no grade crossings to hold up the line's schedule or risk accidents with road traffic. The A&S successfully carried freight traffic through Lancaster County for the first third of the twentieth century; in 1936 a severe flood put the line out of service for several months. The Low Grade was included when the PRR initiated its east-west electrification project in 1937 and the A&S had motor-powered fright trains by early 1938. The Safe Harbor dam and hydroelectric station, opened in 1931, provided power for the A&S branch of the Low Grade as well as the main line of the PRR.

As the Low Grade prospered the freight yard at Enola continued to grow. By the beginning of World War II it had over one hundred miles of track and an average train length of eighty-nine cars. Freight traffic increased during World War II but fell twenty percent below pre-war figures in the late 1940s.

The PRR merged with the New York Central in 1968 to form the Penn Central. In 1972 flood waters on the Susquehanna as a result of Hurricane Agnes weakened poorly constructed piers of the Shocks Mill Bridge causing the center section of the bridge to collapse. It took the cash strapped Penn Central over a year to complete repairs.

In 1976 Conrail took over the freight operations of the Penn Central and Amtrak gained control of the passenger line between Philadelphia and Harrisburg as well as responsibility for distribution of the electrical power. Conrail objected to Amtrak's rates and chose to upgrade the former Reading Railroad line through the Schuylkill Valley to carry freight into Philadelphia. This decreased traffic on the Low Grade by half and in 1988 regular freight service on the Low Grade was discontinued after over eighty years of service. In 1990 Conrail began to remove many of the railroad tracks from the Low Grade line including those along the A&S branch.

Photo 2. Truss on the south side of Pequea Creek.

Photo 3. Inverted deck truss over Pequea Creek and truss on the north side of the creek.

Figure 1. Historic photo of the Martic Forge Bridge under construction in ca. 1905, looking west.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM – PHOTO/SITE PLAN SHEET

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
400 North Street, Harrisburg, PA 17120-0093

Survey Code/Tax Parcel/Other No.: PA 075/#31 County: Lancaster 071
Municipality: Conestoga Township Address: Shenk's Ferry Road
Historic Name/Other Name: Shenk's Ferry Road Bridge / Atglen & Susquehanna Railroad / Low Grade

SITE PLAN

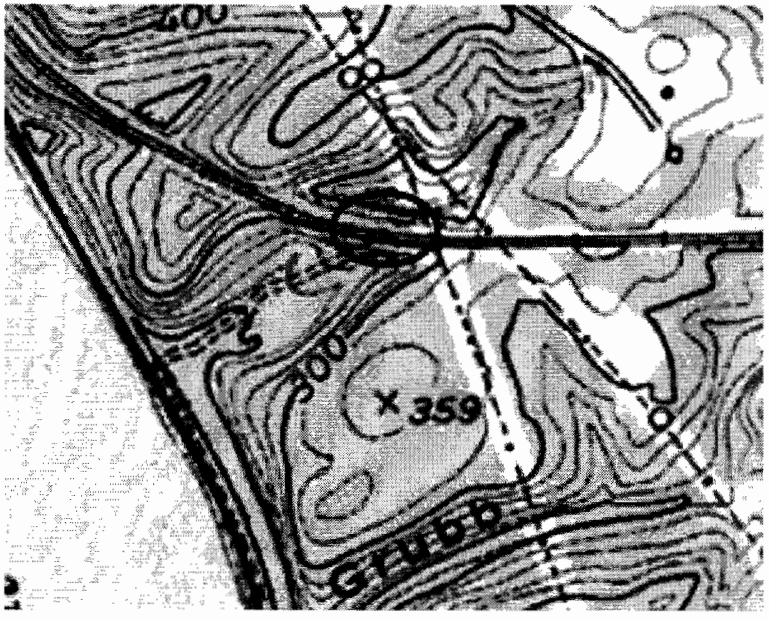
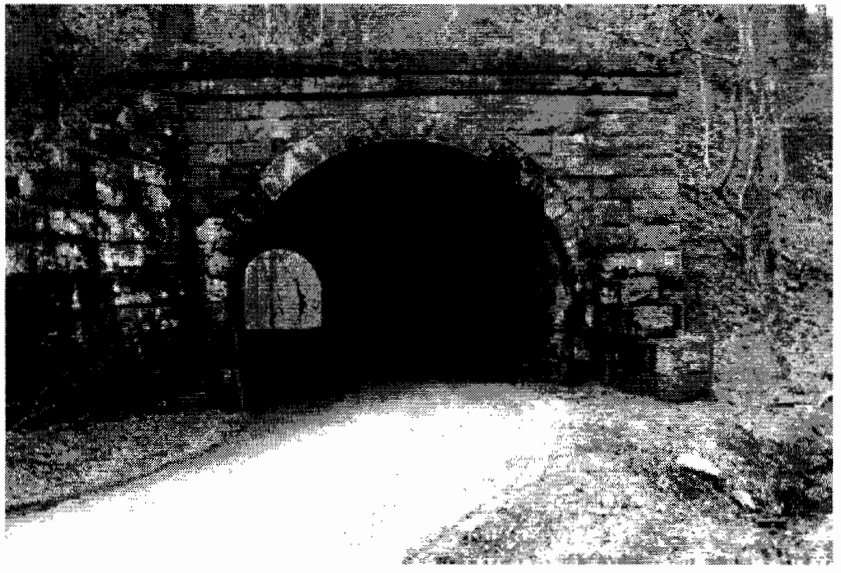


PHOTO INFORMATION

Attach Photo Here



Number	Description of View	Direction of Camera
1	South arch entrance with wingwall.	NW
2	Interior of the arch barrel.	NE
3	North arch entrance with wingwalls.	SE

Photographer Name: Connie Walsh Date: April 2007
Negative Location: ASC Group, 801 E. Park Drive, Harrisburg, PA 17110

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

IDENTIFICATION AND LOCATION

Survey Code: PA 075/#31 Tax Parcel/Other No.:

County: 1. Lancaster 0 7 1 2.

Municipality: 1. Conestoga Township 2.

Street/Road: Shenk's Ferry Road

Crossing Over: Shenk's Ferry Road

Historic Name: Shenk's Ferry Road Bridge

Other Name: Atglen & Susquehanna Railroad / Low Grade

Owner Name/Address: Norfolk Southern Corp., 3 Commercial Place, Norfolk, VA 23510

Owner Category: ☑ Private ☐ Public-local-county ☐ Public-local-municipal ☐ Public-state ☐ Public-federal

USGS Quad: 1. Conestoga 2.

UTM References: A. 180383272E 4418146N
B.

HISTORIC AND CURRENT FUNCTIONS

	Historic Function Category:	Subcategory:	Code:
A.	Transportation	Rail-Related	1 6 A
B.			

	Current Function Category:	Subcategory:	Code:
A.	Vacant / Not in Use		0 9 8
B.			

Particular Type: Railroad Bridge

PHYSICAL DESCRIPTION

Architectural Description: No Style 0 1

B. Other:

# of Spans 0 1 Overall Length 2 4 Predominant Material 4 3

# of Main Spans 0 1

Main Span

Materials: 1. 4 3 2. Length: 2 4 Span Type: 3 0

Design Type: 5 8 0 2 Structural Feature: 1. 0 4 2.

Secondary Span 1

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 2

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 3

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Substructure

Materials: 1. 4 3 2. ____ ____ Structural Feature: ____ ____ Configuration: ____

HISTORICAL INFORMATION

Year Built: 1905 ca. ____ to ca. ____ Additions/Alteration Dates: ____ ca. ____ ca. ____

Basis for Dating: ☑ Documentary ☐ Physical

Explain: The bridge has a plaque.

Associated Individuals: 1. ____ 2. ____

Associated Events: 1. ____ 2. ____

Architects/Engineers: 1. W. H. Brown 2. ____

Builders: 1. H. S. Kerbaugh, Inc. 2. ____

MAJOR BIBLIOGRAPHICAL REFERENCES

Abendschein, Frederic H., "The Atglen & Susquehanna: Lancaster County's Low Grade." The Keystone, Volume 27, Number 4. Lewistown, PA Railroad Technical & Historical Society, 1994.

Messer, David, Triumph II: Philadelphia to Harrisburg, 1828-1998. Baltimore: Barnard, Roberts and Company, 1999.

PREVIOUS SURVEY, DETERMINATIONS

None

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ☐ Yes ☐ No Context(s): ____

Contributes to Potential District: ☑ Yes ☐ No District Name/Status: Enola Low Grade RR - Eligible

Explain: The Enola Low Grade Railroad was determined eligible for the National Register in 1999 and the Shenk's Ferry Road Bridge is considered a contributing resource.

SURVEY INFORMATION

Survey Name/Title: Susan M. Cabot, Architectural Historian Date: October 2007

Project Name: Enola Low Grade

Organization: ASC Group, Inc. Telephone: 717-564-5705

Street and No.: 801 E. Park Drive, Suite 102

City, State: Harrisburg, PA Zip Code: 17111

Additional Survey Documentation: ____

Associated Survey Codes: ____

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

Survey Code: PA 075/#31 Tax Parcel/Other No.: _____

County: Lancaster Municipality: Conestoga Township

Address: Shenk's Ferry Road

Historic/Other Name: Shenk's Ferry Road Bridge / Atglen & Susquehanna Railroad / Low Grade

PHYSICAL DESCRIPTION:

The Shenk's Ferry Bridge is located on Shenk's Ferry Road in Conestoga Township, Lancaster County, adjacent to the Susquehanna River and just south of the Safe Harbor dam and hydroelectic station. It is supported by a squared block limestone arch underpass with solid spandrels that transition to stone wingwalls at the north entrance and a wingwall on the west side of the south entrance. The east side of the south entrance is a stone abutment with a low stone support feature (Photo 1.) The semi-circular entrance arches are framed by voussoirs of equal size with a center keystone. The bridge was constructed in 1905 and does not appear to have been altered or renovated.

HISTORICAL NARRATIVE:

The Shenk's Ferry Road Bridge is part of the Atglen and Susquehanna Railroad (A&S), perhaps better known as the Low Grade, constructed between 1903 and 1906 and covering a route from the Borough of Atglen in Chester County through Lancaster County. By way of other connecting rail lines, the Low Grade route eventually terminated on the west side of the Susquehanna River at a new rail yard in Enola, just west of Harrisburg.

In 1902 the Pennsylvania Railroad (PRR) embarked on an "Improvement Plan" to build a double track, low grade line between Philadelphia and Harrisburg for the purpose of carrying freight only. There was a need for a safe, cost effective way to move the slower freight traffic between the cities and keep it from delaying passenger traffic on the PRR's Main Line. The A&S was part of that line and it would carry no passengers so all population centers could be avoided. The planned route made use of easy grades in the Chester Valley and the Susquehanna River valleys with cuts, fills and bridges where necessary and minimal curvature. When construction was complete there were three major steel bridges at Brandywine Creek, Martic Forge, and Safe Harbor and three massive stone bridges at Chickies Creek, Shocks Mill and Codorus Creek. All along the A&S line there were smaller bridges, overpasses, and culverts. The entire line was designed and constructed under the direction of the PRR's Chief Engineer, William H. Brown.

The Shenk's Ferry Road Bridge in Conestoga Township is supported by an underpass that carries the A&S rail line over Shenk's Ferry Road. Construction contracts for the A&S line of the Low Grade were divided between five contractors who set up headquarters in various parts of southern Lancaster County. The H.S. Kerbaugh Company constructed the Shenk's Ferry Road Bridge in 1905.

The entire Low Grade Line came into service in July 1906. The A&S portion of the Low Grade ran for 44.9 miles from Parkesburg in Chester County to Shocks Mills in Lancaster County. Eastbound the average grade was 0.03% and westbound the grade averaged 0.06% and there were no grade crossings to hold up the line's schedule or risk accidents with road traffic. The A&S successfully carried freight traffic through Lancaster County for the first third of the twentieth century; in 1936 a severe flood put the line out of service for several months. The Low Grade was included when the PRR initiated its east-west electrification project in 1937 and the A&S had motor-powered fright trains by early 1938. The Safe Harbor dam and hydroelectric station, opened in 1931, provided power for the A&S branch of the Low Grade as well as the main line of the PRR.

As the Low Grade prospered the freight yard at Enola continued to grow. By the beginning of World War II it had over one hundred miles of track and an average train length of eighty-nine cars. Freight traffic increased during World War II but fell twenty percent below pre-war figures in the late 1940s.

The PRR merged with the New York Central in 1968 to form the Penn Central. In 1972 flood waters on the Susquehanna as a result of Hurricane Agnes weakened poorly constructed piers of the Shocks Mill Bridge causing the collapse of the center section of the bridge. It took the cash strapped Penn Central over a year to complete repairs.

In 1976 Conrail took over the freight operations of the Penn Central and Amtrak gained control of the passenger line between Philadelphia and Harrisburg as well as responsibility for distribution of the electrical power. Conrail objected to Amtrak's rates and chose to upgrade the former Reading Railroad line through the Schuylkill Valley to carry freight into Philadelphia. This decreased traffic on the Low Grade by half and in 1988 regular freight service on the Low Grade was discontinued after over eighty years of service. In 1990 Conrail began to remove many of the railroad tracks from the Low Grade line including those along the A&S branch.

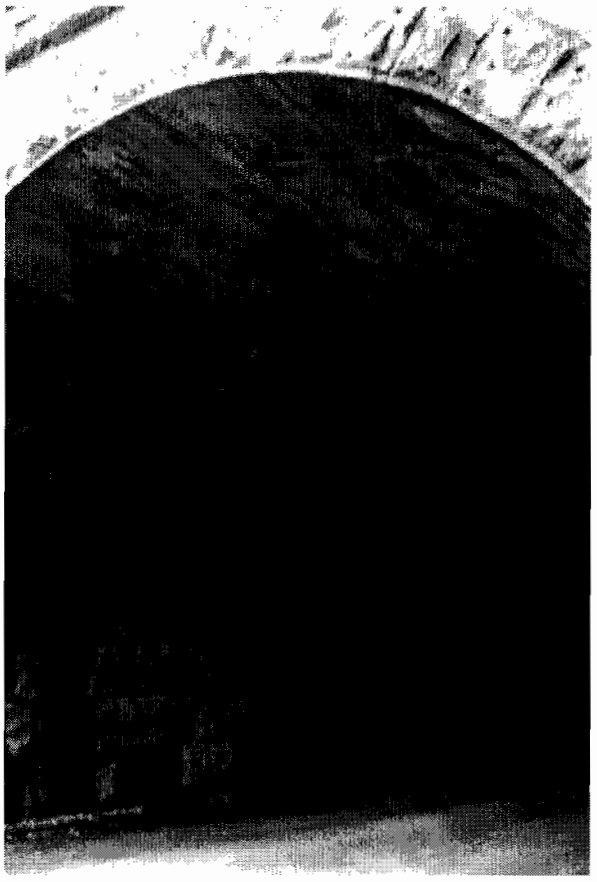


Photo 2. Interior of the arch barrel.

Photo 3. North arch entrance with wingwalls.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM – PHOTO/SITE PLAN SHEET

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
400 North Street, Harrisburg, PA 17120-0093

Survey Code/Tax Parcel/Other No.: PA 075 County: Lancaster 071
Municipality: Conestoga Township Address:
Historic Name/Other Name: Gardners Run Bridge / Atglen & Susquehanna Railroad / Low Grade

SITE PLAN

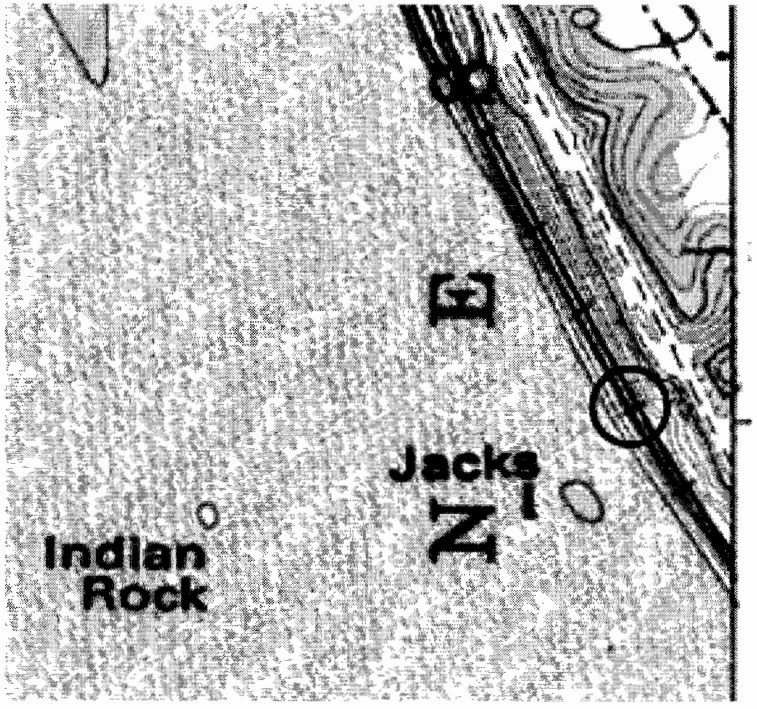


PHOTO INFORMATION

Attach Photo Here

Number	Description of View	Direction of Camera
1	East entrance arch.	W
2	Interior of the brick arch barrel culvert	W

Photographer Name: Mike Stanilla Date: May 2007
Negative Location: ASC Group, 801 E. Park Drive, Harrisburg, PA 17111

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

IDENTIFICATION AND LOCATION

Survey Code: PA 075 Tax Parcel/Other No.: _____

County: 1. Lancaster 0 7 1 2. _____

Municipality: 1. Conestoga Township 2. _____

Street/Road: _____

Crossing Over: Gardners Run

Historic Name: Gardners Run Bridge

Other Name: Atglen & Susquehanna Railroad / Low Grade

Owner Name/Address: Norfolk Southern Corp., 3 Commercial Place, Norfolk, VA 23510

Owner Category: ☑ Private ☐ Public-local-county ☐ Public-local-municipal ☐ Public-state ☐ Public-federal

USGS Quad: 1. Conestoga 2. _____

UTM References: A. 180382628E 4418665N _____

B. _____

HISTORIC AND CURRENT FUNCTIONS

	Historic Function Category:	Subcategory:	Code:
A.	Transportation	Rail-Related	1 6 A
B.			

	Current Function Category:	Subcategory:	Code:
A.	Vacant / Not in Use		0 9 8
B.			

Particular Type: Railroad Bridge

PHYSICAL DESCRIPTION

Architectural Description: No Style 0 1

B. _____ Other: _____

# of Spans 0 1 Overall Length 1 0 Predominant Material 4 3

# of Main Spans 0 1

Main Span

Materials: 1. 4 3 2. 3 0 Length: 1 0 Span Type: 3 0

Design Type: 5 8 0 2 Structural Feature: 1. 0 4 2. _____

Secondary Span 1

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 2

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 3

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Substructure

Materials: 1. 4 3 2. 3 0 Structural Feature: ____ ____ Configuration: ____

HISTORICAL INFORMATION

Year Built: ____ ca. 1904 to ca. 1906 Additions/Alteration Dates: ____ ca. ____ ca. ____

Basis for Dating: ☑ Documentary ☐ Physical

Explain: The Atglen & Susquehanna branch was constructed between 1903 and 1906.

Associated Individuals: 1. ____ 2. ____

Associated Events: 1. ____ 2. ____

Architects/Engineers: 1. W. H. Brown 2. ____

Builders: 1. Unknown 2. ____

MAJOR BIBLIOGRAPHICAL REFERENCES

Abendschein, Frederic H., "The Atglen & Susquehanna: Lancaster County's Low Grade." The Keystone, Volume 27, Number 4.Lewistown, PA Railroad Technical & Historical Society, 1994.

Messer, David, Triumph II: Philadelphia to Harrisburg, 1828-1998. Baltimore: Barnard, Roberts and Company, 1999.

PREVIOUS SURVEY, DETERMINATIONS

None

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ☐ Yes ☐ No Context(s): ____

Contributes to Potential District: ☑ Yes ☐ No District Name/Status: Enola Low Grade RR - Eligible

Explain: The Enola Low Grade Railroad was determined eligible for the National Register in 1999 and the Gardners Run Bridge is considered a contributing resource.

SURVEY INFORMATION

Survey Name/Title: Susan M. Cabot, Architectural Historian Date: October 2007

Project Name: Enola Low Grade

Organization: ASC Group, Inc. Telephone: 717-564-5705

Street and No.: 801 E. Park Drive, Suite 102

City, State: Harrisburg, PA Zip Code: 17111

Additional Survey Documentation: ____

Associated Survey Codes: ____

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

Survey Code: PA 075 Tax Parcel/Other No.: _____

County: Lancaster Municipality: Conestoga Township

Address: _____

Historic/Other Name: Gardners Run Bridge / Atglen & Susquehanna Railroad / Low Grade

PHYSICAL DESCRIPTION:

The Gardners Run Bridge is located in Conestoga Township, Lancaster County, Pennsylvania. It is on the southern boundary of the township, adjacent to the Susquehanna River and just south of the Safe Harbor dam and hydroelectic station. The ten foot long railway bed of the Gardners Run Bridge is supported below by a brick arch culvert. The culvert is constructed with squared stones and semi-circular opening arches with equal size voussoirs and a center keystone. the solid spandrels of the culvert transition to stone wingwalls on each side. The stone voussoirs of the opening arch key into the bricks that form the majority of the arch barrel. The bottom third of the arch barrel is stone blocks. The wingwalls supported a large amount of fill between the culvert and the rail bed above it.

HISTORICAL NARRATIVE:

The Gardners Run Bridge is part of the Atglen and Susquehanna Railroad (A&S), perhaps better known as the Low Grade, constructed between 1903 and 1906 and covering a route from the Borough of Atglen in Chester County through Lancaster County. By way of other connecting rail lines, the Low Grade route eventually terminated on the west side of the Susquehanna River at a new rail yard in Enola, just west of Harrisburg.

In 1902 the Pennsylvania Railroad (PRR) embarked on an "Improvement Plan" to build a double track, low grade line between Philadelphia and Harrisburg for the purpose of carrying freight only. There was a need for a safe, cost effective way to move the slower freight traffic between the cities and keep it from delaying passenger traffic on the PRR's Main Line. The A&S branch was part of this line and it would carry no passengers so all population centers could be avoided. The planned route made use of easy grades in the Chester Valley and the Susquehanna River valleys with cuts, fills and bridges where necessary and minimal curvature. When construction was complete there were three major steel bridges at Brandywine Creek, Martic Forge, and Safe Harbor and three massive stone bridges at Chickies Creek, Shocks Mill and Codorus Creek. All along the A&S line there were smaller bridges, overpasses, and culverts. The entire line was designed and constructed under the direction of the PRR's Chief Engineer, William H. Brown.

The Gardners Run Bridge is supported by a brick arch culvert over Gardners Run and a large amount of fill material. Gardners Run is a small stream with little velocity located along the southern boundary of Conestoga Township by the Susquehanna River. The stone culvert was constructed first and then lightweight trestles and the railroad tracks were put in place followed by train car loads of fill material dumped over the trestle. Construction contracts for the A&S branch of the Low Grade were divided between five contractors who set up headquarters in various parts of southern Lancaster County.

The entire Low Grade Line came into service in July 1906. The A&S portion of the Low Grade ran for 44.9 miles from Parkesburg in Chester County to Shocks Mills in Lancaster County. Eastbound the average grade was 0.03% and westbound the grade averaged 0.06% and there were no grade crossings to hold up the line's schedule or risk accidents with road traffic. The A&S successfully carried freight traffic through Lancaster County for the first third of the twentieth century; in 1936 a severe flood put the line out of service for several months. The Low Grade was included when the PRR initiated its east-west electrification project in 1937 and the A&S had motor-powered fright trains by early 1938. The Safe Harbor dam and hydroelectric station, which opened in 1931, provided power for the A&S branch of the Low Grade as well as the main line of the PRR.

As the Low Grade prospered the freight yard at Enola continued to grow. By the beginning of World War II it had over one hundred miles of track and an average train length of eighty-nine cars. Freight traffic increased during World War II but fell twenty percent below pre-war figures in the late 1940s.

The PRR merged with the New York Central in 1968 to form the Penn Central. In 1972 flood waters on the Susquehanna as a result of Hurricane Agnes weakened poorly constructed piers of the Shocks Mill Bridge causing the collapse of the center section of the bridge. It took the cash strapped Penn Central over a year to complete repairs.

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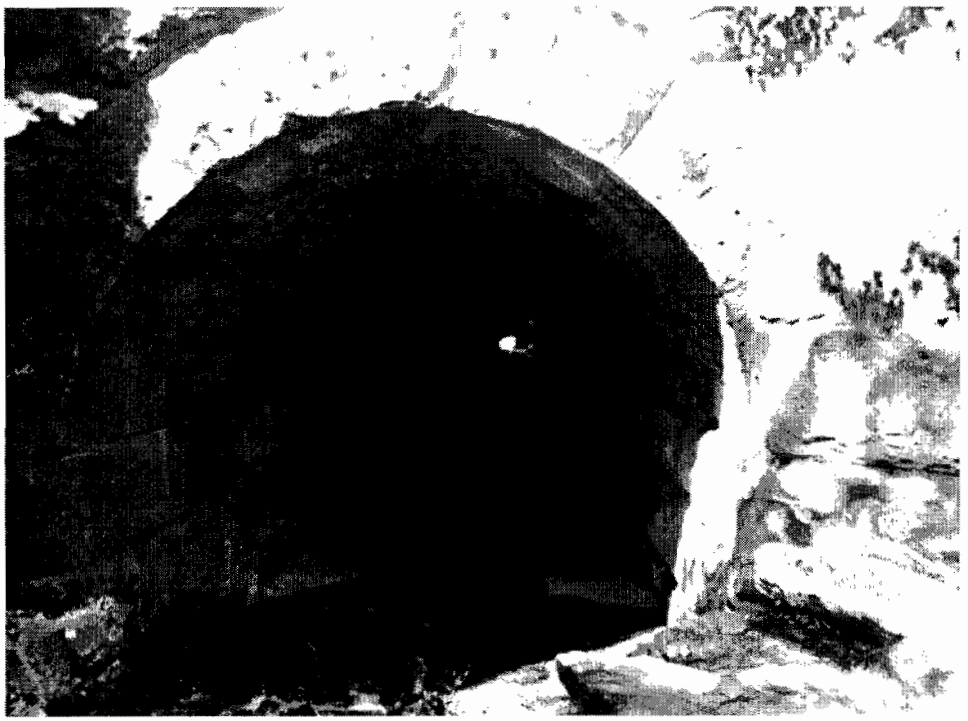


Photo 2. Entrance arch showing the brick arch barrel connecting to the stone blocks.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM – PHOTO/SITE PLAN SHEET

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
400 North Street, Harrisburg, PA 17120-0093

Survey Code/Tax Parcel/Other No.: PA 075 County: Lancaster 071
Municipality: Conestoga Township Address:
Historic Name/Other Name: Boatman Run Bridge/ Atglen & Susquehanna Railroad / Low Grade

SITE PLAN

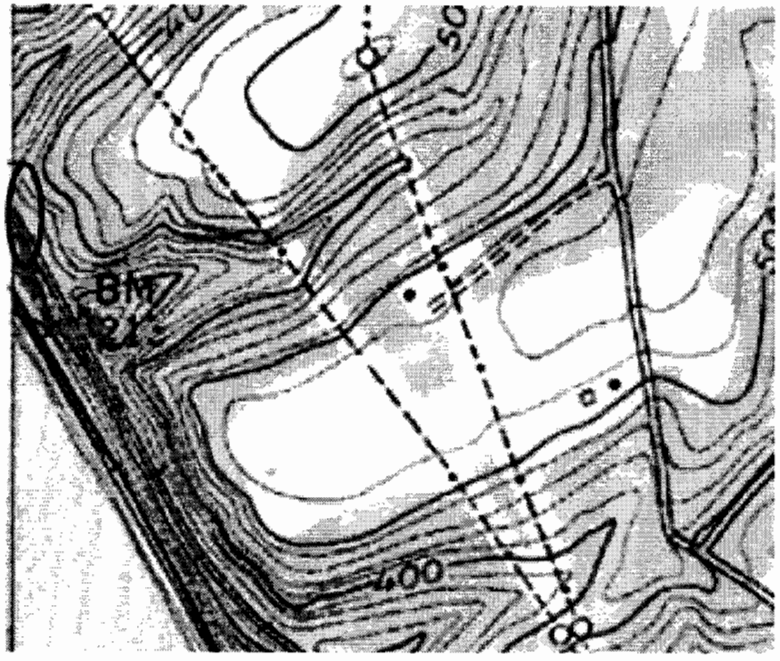
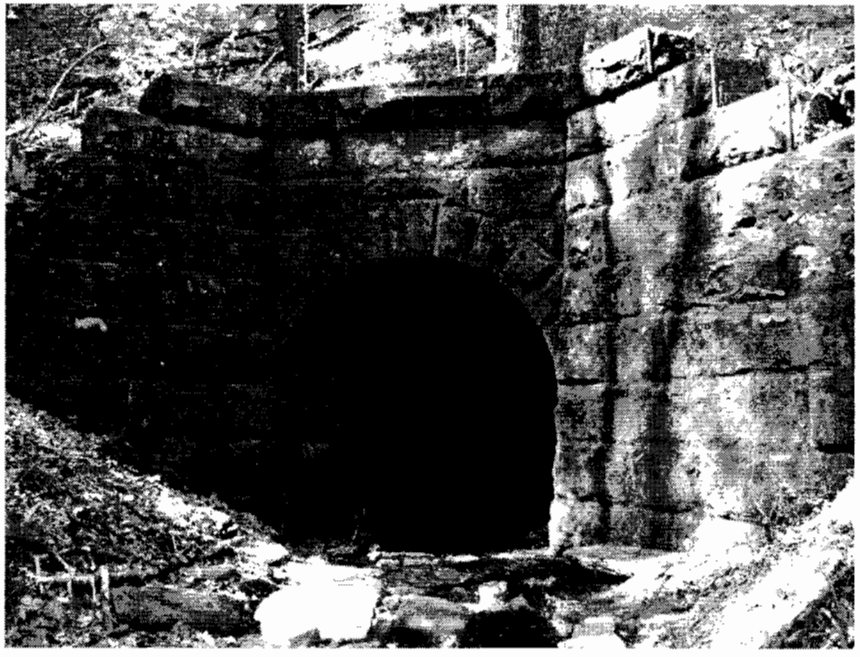


PHOTO INFORMATION

Attach Photo Here



Number	Description of View	Direction of Camera
1	East entrance arch of the culvert.	W
2	Interior of the culvert.	W

Photographer Name: Mike Stanilla Date: May 2007
Negative Location: ASC Group, 801 E. Park Drive, Harrisburg, PA 17111

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

IDENTIFICATION AND LOCATION

Survey Code: PA 075 Tax Parcel/Other No.: _____

County: 1. Lancaster 0 7 1 2. _____

Municipality: 1. Conestoga Township 2. _____

Street/Road: _____

Crossing Over: Boatman Run

Historic Name: Boatman Run Bridge

Other Name: Atglen & Susquehanna Railroad / Low Grade

Owner Name/Address: Norfolk Southern Corp., 3 Commercial Place, Norfolk, VA 23510

Owner Category: ☑ Private ☐ Public-local-county ☐ Public-local-municipal ☐ Public-state ☐ Public-federal

USGS Quad: 1. Conestoga 2. _____

UTM References: A. 180382676E 4418572N

B. _____

HISTORIC AND CURRENT FUNCTIONS

	Historic Function Category:	Subcategory:	Code:
A.	Transportation	Rail-Related	1 6 A
B.			

	Current Function Category:	Subcategory:	Code:
A.	Vacant / Not in Use		0 9 8
B.			

Particular Type: Railroad Bridge

PHYSICAL DESCRIPTION

Architectural Description: No Style 0 1

B. _____ Other: _____

# of Spans 0 1 Overall Length 1 0 Predominant Material 4 3

# of Main Spans 0 1

Main Span

Materials: 1. 4 3 2. 3 0 Length: 1 0 Span Type: 3 0

Design Type: 5 8 0 2 Structural Feature: 1. 0 4 2. _____

Secondary Span 1

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 2

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Secondary Span 3

Materials: 1. ____ ____ 2. ____ ____ Length: ____ ____ ____ ____ Span Type: ____ ____

Design Type: ____ ____ ____ ____ Structural Feature: ____ ____

Substructure

Materials: 1. 4 3 2. 3 0 Structural Feature: ____ ____ Configuration: ____

HISTORICAL INFORMATION

Year Built: ____ ca. 1904 to ca. 1906 Additions/Alteration Dates: ____ ca. ____ ca. ____

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Messer, David, Triumph II: Philadelphia to Harrisburg, 1828-1998. Baltimore: Barnard, Roberts and Company, 1999.

PREVIOUS SURVEY, DETERMINATIONS

None

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ☐ Yes ☐ No Context(s): ____

Contributes to Potential District: ☑ Yes ☐ No District Name/Status: Enola Low Grade RR-Eligible

Explain: ____

SURVEY INFORMATION

Survey Name/Title: Susan M. Cabot, Architectural Historian Date: October 2007

Project Name: Enola Low Grade

Organization: ASC Group, Inc. Telephone: 717-564-5705

Street and No.: 801 E. Park Drive, Suite 102

City, State: Harrisburg, PA Zip Code: 17111

Additional Survey Documentation: ____

Associated Survey Codes: ____

PENNSYLVANIA HISTORIC BRIDGE SURVEY FORM – DATA SHEET 96BBR

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION

Survey Code: PA - 075 Tax Parcel/Other No.: _____

County: Lancaster Municipality: Conestoga Township

Address: _____

Historic/Other Name: Boatman Run Bridge / Atglen & Susquehanna Railroad / Low Grade

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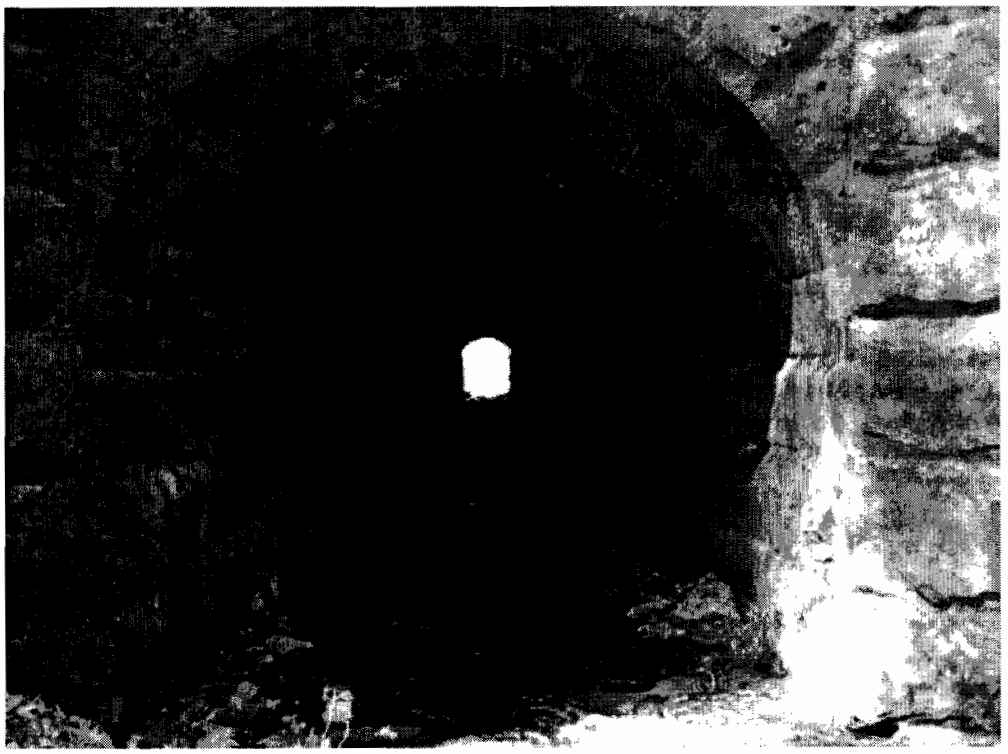


Photo 2. Looking west from the entrance arch showing the brick arch barrel.

APPENDIX F

MAP OF THE ATGLEN AND SUSQUEHANNA LINE

TRACK CHART OF THE ATGLEN AND SUSQUEHANNA LINE

1989 CONRAIL BRIDGE LIST FOR THE ATGLEN AND SUSQUEHANNA LINE

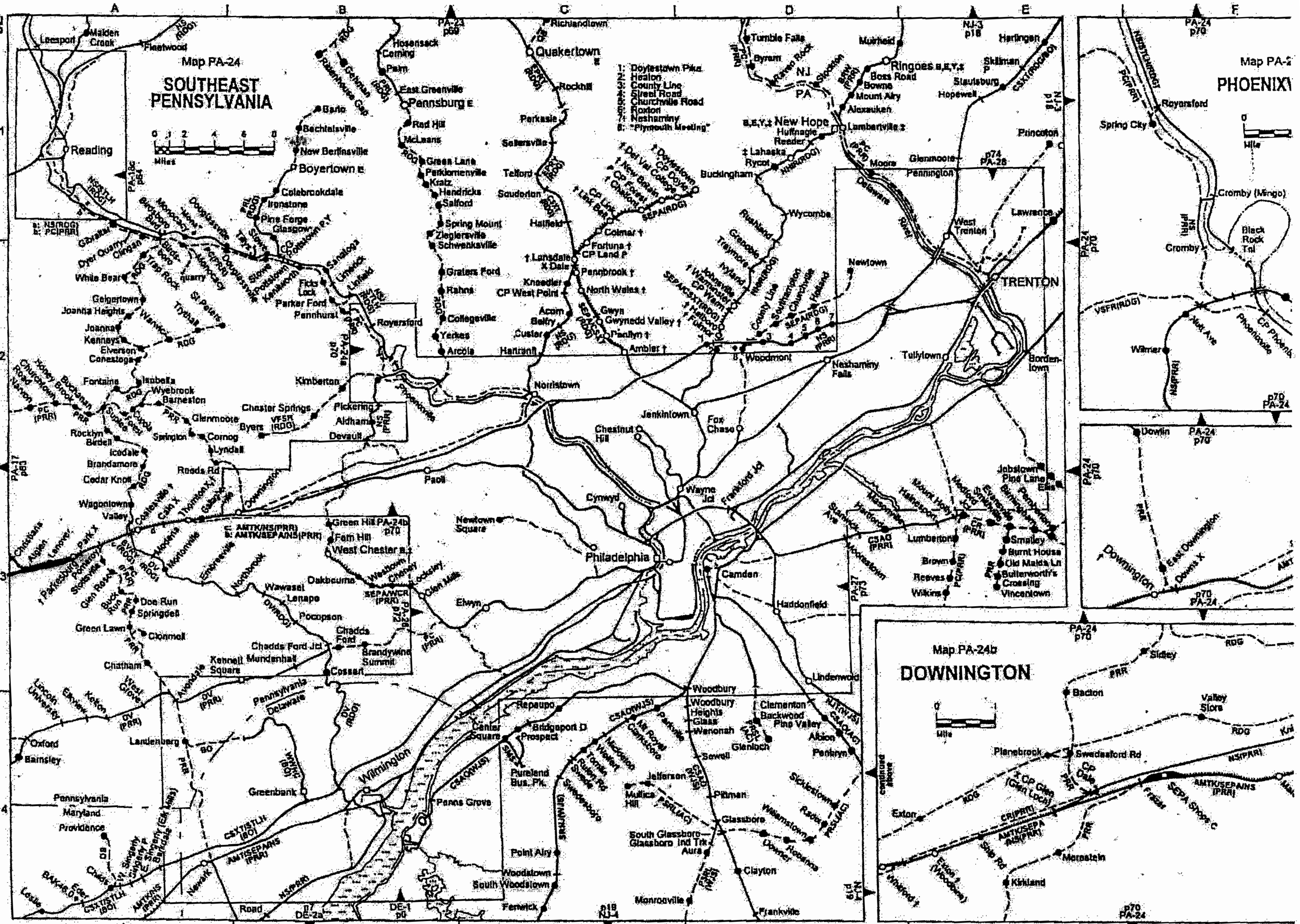
SPV's
COMPREHENSIVE
RAILROAD ATLAS
OF NORTH AMERICA

NORTHEAST

MIKE WALKER

Published in England by
Ian Andrews
SPV, Dawes Road, Dunkirk, Faversham, Kent ME13 9UU U.K.

ISBN 1 874745 10 2
First Published 1993
Completely revised & updated 1998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Miles
Map PA-24b
DOWNINGTON
Map PA-2
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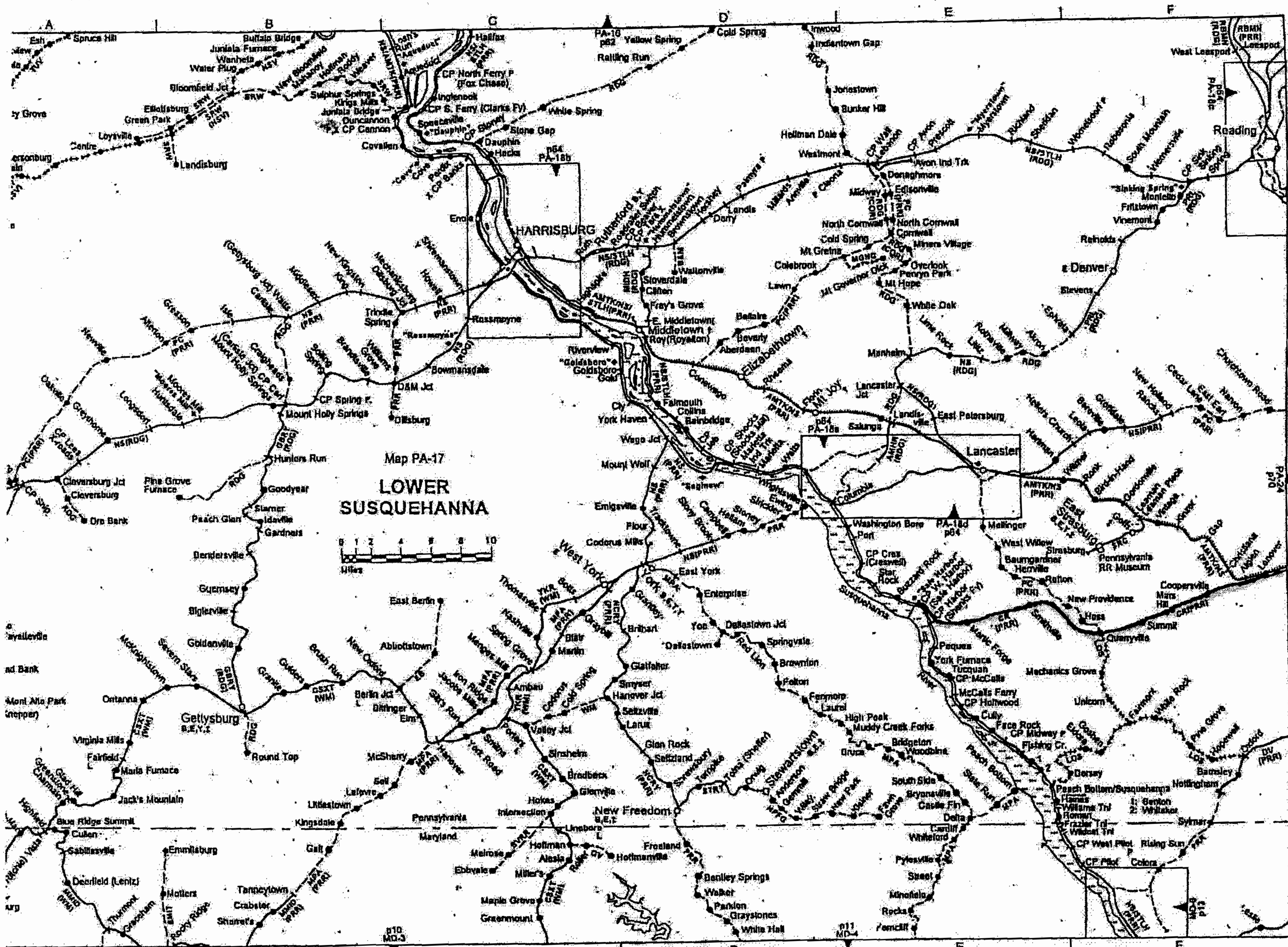
Quakertown
Pennsburg
Boyertown
New Hope
Ringoes
TRENTON
Norristown
Jenkintown
Paoli
West Chester
Philadelphia
Camden
Wilmington
Woodbury
Haddonfield
Glassboro
Downington
Royersford
Spring City
Cromby (Mingo)
1: Doylestown Pike
2: Heaton
3: County Line
4: Street Road
5: Churchville Road
6: Roxton
7: Neshaminy
8: "Plymouth Meeting"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LOWER
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West York
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Middletown
Columbia
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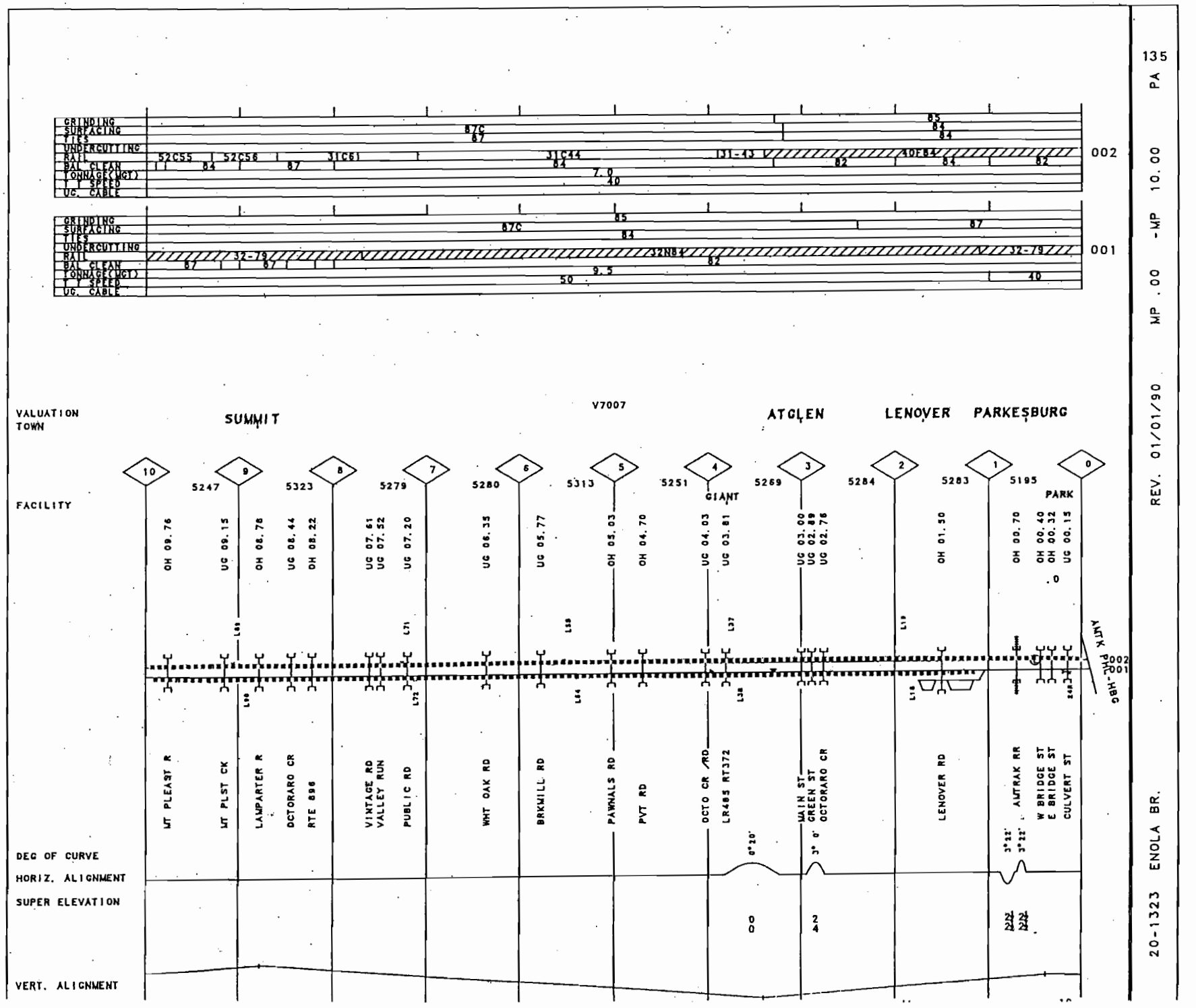
MD-4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REV. 01/01/90
20-1323 ENOLA BR.
002
001
GRINDING
SURFACING
TIES
UNDERCUTTING
RAIL
BAL CLEAN
TONNAGE(MGT)
T T SPEED
UC. CABLE
52C55
52C56
31C61
31C44
131-43
40E84
32-79
32N84
VALUATION TOWN
SUMMIT
V7007
ATGLEN
LENOVER
PARKESBURG
FACILITY
GIANT
PARK
OH 09.76
UG 09.15
OH 08.78
UG 08.44
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UG 07.52
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UG 05.77
OH 05.03
OH 04.70
UG 04.03
UG 03.81
UG 03.00
UG 02.89
UG 02.78
OH 01.50
OH 00.70
OH 00.40
OH 00.32
UG 00.15
MT PLEAST R
MT PLST CK
LAMPARTER R
OCTORARO CR
RTE 898
VINTAGE RD
VALLEY RUN
PUBLIC RD
WHT OAK RD
BRKWILL RD
PAWNALS RD
PVT RD
OCTO CR RD
LR485 RT372
MAIN ST
GREEN ST
OCTORARO CR
LENOVER RD
AMTRAK RR
W BRIDGE ST
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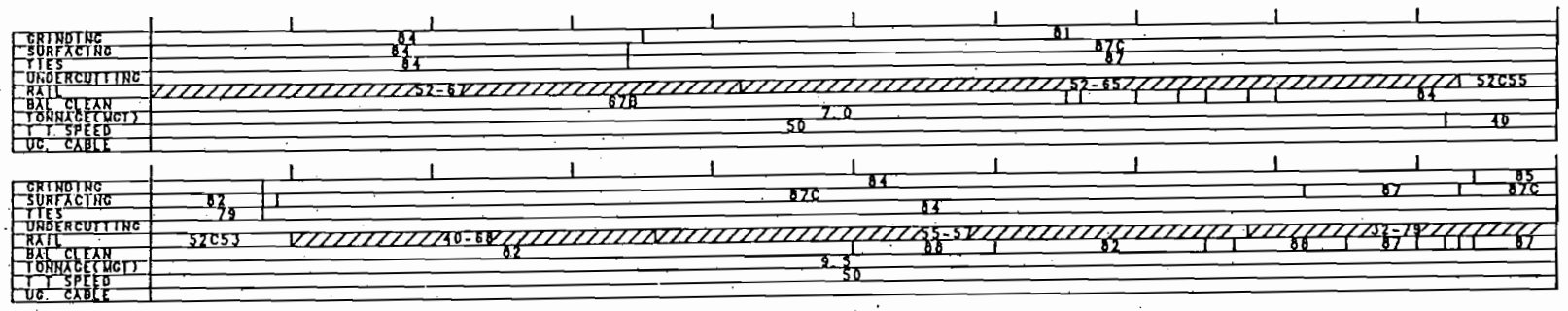
CULVERT ST
ANTX PHD-HBG
DEG OF CURVE
HORIZ. ALIGNMENT
SUPER ELEVATION
VERT. ALIGNMENT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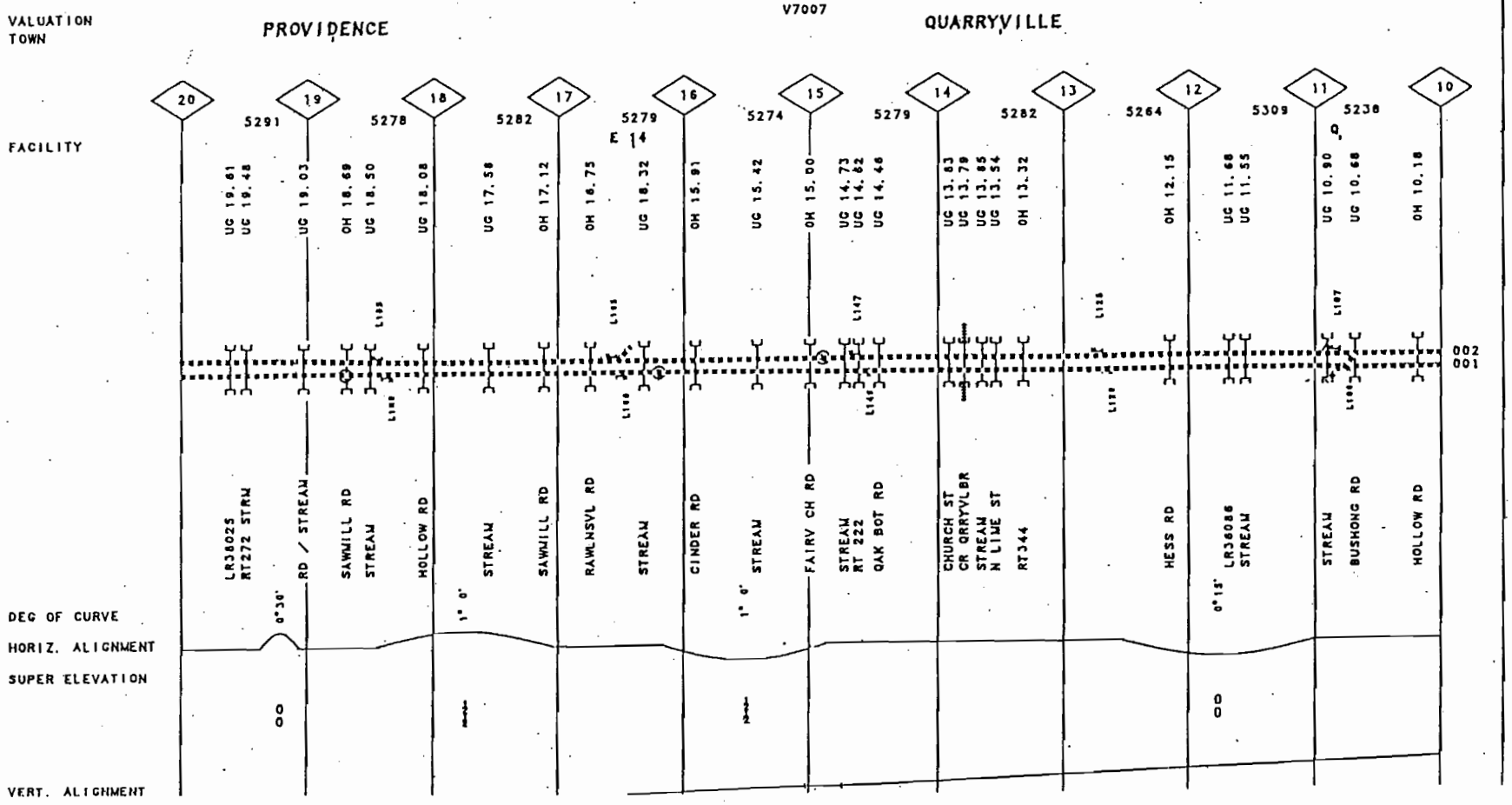
VALUATION TOWN
PROVIDENCE
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QUARRYVILLE
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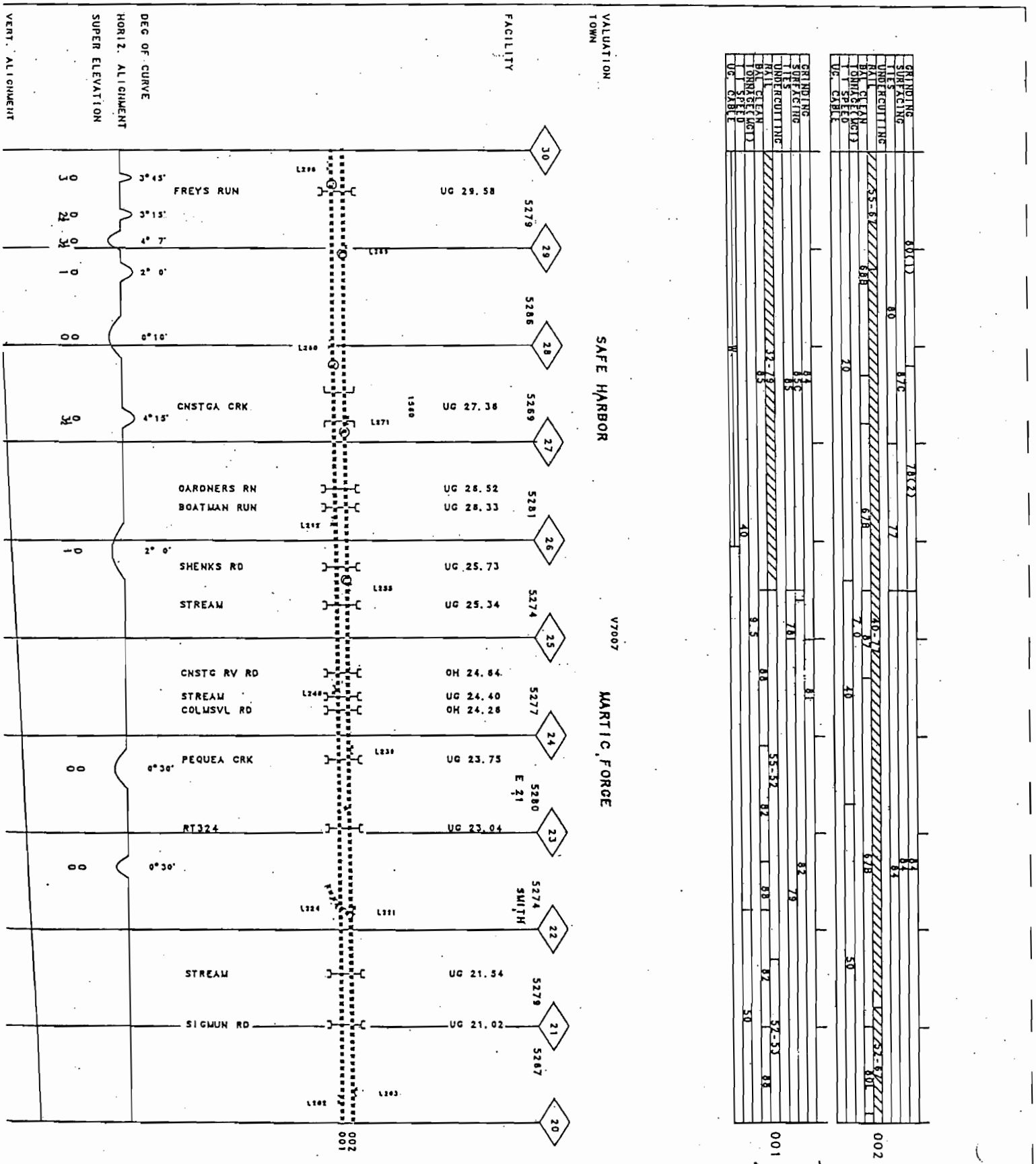
SUPER ELEVATION
VERT. ALIGNMENT
002
001


VERT. ALIGNMENT
SUPER ELEVATION
HORIZ. ALIGNMENT
DEG OF CURVE
FACILITY
VALUATION TOWN
SAFE HARBOR
V7007
MARTIC FORCE
FREYS RUN
UG 29.58
CNSTGA CRK
UG 27.36
GARDNERS RN
UG 26.52
BOATMAN RUN
UG 28.33
SHENKS RD
UG 25.73
STREAM
UG 25.34
CNSTG RV RD
OH 24.64
STREAM
UG 24.40
COLUMSVL RD
OH 24.26
PEQUEA CRK
UG 23.75
RT324
UG 23.04
STREAM
UG 21.54
SIGMUN RD
UG 21.02
GRINDING
RESURFACING
TIES
UNDERCUTTING
RAIL
OC CABLE
001
002

THE CONSOLIDATED RAIL CORPORATION

HARRISBURG DIVISION

LIST OF UNDERGRADE AND OVERHEAD STRUCTURES

OFFICE OF THE CHIEF ENGINEER - MAINTENANCE OF WAY

PHILADELPHIA - PENNSYLVANIA

JANUARY 1 1989

KEY TO ABBREVIATIONS AND TERMS USED IN PAGE HEADINGS

UNDER BRIDGE NUMBER	OLD REFERS TO AN OLD BRIDGE NUMBER, FOR REFRENCE TO OLD FILES ONLY NEW REFERS TO THE BRIDGE NUMBER, USUALLY THE MILEPOST LOCATION T.C. MILE REFERS TO THE MILE POST ON THE TRACK CHART (IF DIFFERENT FROM THE BRIDGE NUMBER)
UNDER LOCATION	ST REFERS TO THE STATE IN WHICH THE BRIDGE IS LOCATED CO REFERS TO THE COUNTY IN WHICH THE BRIDGE IS LOCATED TOWN REFERS TO THE CITY TOWN OR MUNICIPALITY IN WHICH OR NEAR WHICH THE BRIDGE IS LOCATED
NAME OF CROSSING	REFERS TO THE NAME OF ROAD, STREAM, OR FACILITY WHICH THE RAILROAD CROSSES
TP BR	REFERS TO THE TYPE OF BRIDGE
TP DK	REFERS TO THE TYPE OF DECK ON THE BRIDGE
NO TK	REFERS TO THE NUMBER OF TRACKS CARRIED OR CROSSED
NO SP	REFERS TO THE NUMBER OF SPANS IN THE BRIDGE OR NUMBER OF SPANS OF SAME LENGTH
LGH SP	REFERS TO LENGTH OF SPAN BETWEEN BEARINGS
TOTL LNGH	REFERS TO THE TOTAL LENGTH OF BRIDGE BETWEEN BACKWALLS
HOR DIM	REFERS TO THE MAJOR DIMENSION ACROSS THE BRIDGE - WIDTH OF TRAFFIC AREA/LENGTH OF CULVERTS ETC
VRT DIM	REFERS TO THE MAJOR VERT DIMENSION OF THE BRIDGE - DEPTH OF COVER OR DEPTH TO STREAM BED ETC
DT BT	REFERS TO THE YEAR IN WHICH THE BRIDGE WAS BUILT OR SUPERSTRUCTURE INSTALLED
UNDER MAINT	SB REFERS TO SUB STRUCTURE AND AGENCY RESPONSIBLE SP REFERS TO SUPERSTRUCTURE AND AGENCY RESPONSIBLE
LD LMT	REFERS TO THE POSTED LOAD LIMIT FOR OVERGRADE BRIDGES CARRYING ROADS
DT RT	REFERS TO THE YEAR THE MOST RECENT RATING OR CAPACITY CALCULATIONS WERE MADE
DT IN	REFERS TO THE YEAR WHEN THE MOST RECENT COMPLETE INSPECTION WAS MADE
DT RP	REFERS TO THE YEAR IN WHICH THE MOST RECENT MAJOR OR SIGNIFICANT REPAIRS WERE MADE
RT PR	REFERS TO RETIREMENT PROGRAM
PT CD	REFERS TO PAINT CODE
USE CD	REFERS TO THE USE OF THE BRIDGE OR TYPE OF CROSSING

IF FIRST CHARACTER IN A LINE IS :

A SIDE TRACK	B MOVABLE BRIDGE-BASCULE
D MOVABLE BRIDGE-SWING	L MOVABLE BRIDGE-VERTICAL LIFT
R AN OVERGRADE BRIDGE CARRYING CONRAIL TRACKS	S MISCELLANEOUS STRUCTURES NOT UNDER OR OVER TRACKS
T THE STRUCTURE IS A TUNNEL	W AN OVERGRADE BRIDGE CARRYING FOREIGN RAILROAD
X AN OVERGRADE HIGHWAY BRIDGE	Y THE STRUCTURE IS A SIGNAL BRIDGE
Z MISCELLANEOUS OVERGRADE STRUCTURES, (PIPE, SIDEWALK, ETC.)	BLANK IS AN UNDERGRADE BRIDGE

REFERENCE CODES

TYPES OF BRIDGES

TP = THRU PINNED TRUSS	TR = THRU RIVETED TRUSS	DP = DECK PINNED TRUSS	DR = DECK RIVETED TRUSS
TT = THRU TRUSS	BA = BRICK ARCH	CS = CONCRETE SLAB	CI = CAST IRON PIPE
DT = DECK TRUSS	CA = CONCRETE ARCH	CP = CONCRETE PIPE	SU = SUSPENSION OR CABLEWAY
TG = THRU GIRDER	PC = PRESTRESSED CONCRETE	RT = RAIL TOP	CM = CORRUGATED METAL PIPE
DG = DECK GIRDER	TI = TIMBER TRESTLE	OT = ORTHOTROPIC	RS = RAIL STRINGERS
IB = I-BEAM	ST = STEEL TRESTLE	CB = CONCRETE BOX	TB = TIMBER BOX
S = STEEL ARCH	MP = MULTIPLATE PIPE	SB = STONE BOX	CT = CAR BEAM TIMBER TREST.
SA = STONE ARCH	MA = MULTIPLATE ARCH	LT = LONGITUDINAL TROUGH	IT = I-BEAM TIMBER TRESTLE

UNDERGRADE DECK TYPES

OP = OPEN
TT = TRANSVERSE TROUGHS
LT = LONGITUDINAL TROUGH
CS = CONCRETE SLAB
TB = TIMBER BALLASTED
ST = SOLID TIMBER-NO BALLAST
IP = IRON PLATES
CP = CONCRETE WITH POCKETS

OVERHEAD DECK TYPES

G = METAL GRATING
P = PLANK
PA = PLANK AND AMESITE
LA = LAMINATED WITH AMESITE
C = CONCRETE
SA = STEEL WITH AMESITE

PAINT CODES

0 = BRIDGE REQUIRES NO PAINT
1 = PAINT IN NEXT 10 YEARS
2 = PAINT IN NEXT 5 YEARS
3 = SPOT PRIME & FINISH COAT
4 = FULL SANDBLASTING & PRIMING
5 = STEEL REPAIRS & FULL BLASTING

MAINTAINED BY

00 = UNKNOWN OR NOT ESTABLISHED
01 = CONRAIL
02 = STATE DEPARTMENT OF HIGHWAYS
03 = AUTHORITY,PARKWAY,OR COMMISSION
04 = COUNTY
05 = TOWN
06 = CITY
07 = TOWNSHIP
08 = JOINT CONRAIL AND STATE
09 = JOINT CONRAIL AND OTHER RAILROAD
10 = MAINTAINED ENTIRELY BY OTHERS
11 = JOINT CONRAIL AND COUNTY
12 = JOINT CONRAIL AND TOWNSHIP
13 = JOINT CONRAIL AND CITY

USE CODES

1 = CONRAIL
2 = STATE DEPARTMENT OF HIGHWAYS
3 = AUTHORITY,PARKWAY,OR COMMISSION
4 = COUNTY
5 = TOWN
6 = CITY
7 = TOWNSHIP
S = WATERWAYS N = NAVIGABLE
R = CONRAIL CROSSING
H = FOREIGN RAILROAD CROSSING

STATES

01 = CONNECTICUT	06 = KENTUCKY	11 = NEW YORK	15 = RHODE ISLAND
02 = DELAWARE	07 = MARYLAND	12 = OHIO	16 = VIRGINIA
03 = DISTRICT OF COLUMBIA	08 = MASSACHUSETTS	13 = ONTARIO	17 = WEST VIRGINIA
04 = INDIANA	09 = MICHIGAN	14 = PENNSYLVANIA	18 = QUEBEC
05 = ILLINOIS	10 = NEW JERSEY		

ORIGINAL RAILROAD CODES

01 = LEHIGH AND HUDSON RIVER	1* = PENN CENTRAL EASTERN REGION	OS = OUT OF SERVICE
02 = CENTRAL OF NEW JERSEY	2* = PENN CENTRAL CENTRAL REGION	TR = TRACK REMOVED
03 = READING COMPANY	3* = PENN CENTRAL WESTERN REGION	AP = ABANDONMENT PROGRAM
05 = LEHIGH VALLEY	4* = PENN CENTRAL NORTHEASTERN REGION	SL = SOLD
06 = LEHIGH VALLEY	5* = PENN CENTRAL NORTHERN REGION	LD = LIGHT DENSITY
6* = ERIE LACKAWANA	8* = PENN CENTRAL SOUTHERN REGION	IC = APPROVED BY ICC
99 = PRSL	91 = PENN CENTRAL METROPOLITAN REGION	

RETIREMENT

OS = OUT OF SERVICE
TR = TRACK REMOVED
AP = ABANDONMENT PROGRAM
SL = SOLD
LD = LIGHT DENSITY
IC = APPROVED BY ICC

BRIDGE NUMBER OLD	NEW	LOCATION ST	CO	TOWN	T.C. MILE	NAME OF CROSSING	TP BR	TP DK	NO TK	NO SP	LGH SP	TOTL LNGH	HOR DIM	VRT DIM	DATE BT	MAINT SB	LD SP	DT LMT	DT RT	DT IN	RT RP	PT PR	USE CD	REMARKS
		0.41	14	16 E BRADY		DITCH	CI		2	1	5	5			1924	01	01		88		AP	S	OS	
		0.91	14	61 E BRADY		DITCH	SB		8	2	6	6			1866	01	01		88		AP	S	OS	
		1.37	14	61 E BRADY		WALNUT ST	DG	OP	0	1	27										1	1	OS	
							CS		1	1	27	27			1920	01	01		88	57	AP	1		
		1.87	14	61 E BRADY		PINE RUN	CP		1	1	5											S	OS	
							CP		1	1	6	11			1919	01	01		88		AP			
		ENOLA BR.				PARKESBURG & MAGO JCT.						PA			0.0		50.6			20	1323			
		0.15	14	15 PARKSBG		CULVERT ST	TG	ST	2	1	28	28			1904	10	10		88	53	4	1		
X		0.32	14	15 PARKSBG		E BRIDGE ST	TG	LA	4	3	41											1		
							TG	LA	0	1	25	150			1904	09	09	12T	88	60		1	ALSO AMTRK X44.32	
X		0.40	14	15 PARKSBG		M BRIDGE ST	TG	LA	4	3	46											1		
							TG	LA	0	1	32	170			1904	09	09	12T	88	53		1	ALSO AMTRK X44.40	
M		0.70	14	15 PARKSBG		AMTRAK RR	TG	TT	1	1	87											M		
							TG	TT	1	1	73	164			1904	09	09		88	60			ALSO AMTRK 44.70	
X		1.50	14	15 LENOVER		LENOVER RD	TT	LA	5	2	99											1	ALSO MENTZ ROAD OS	
							TT	LA	0	1	35	235			1904	09	09	4T	88	35		1	ALSO AMTRK X45.50 OS	
	45+	1.89	14	15 LENOVER		STREAM	BA		2	1	6	6			1904	09	09		88	67		S		
	46+	2.76	14	15 ATGLEN		OCTORARO CR	SA		2	1	24	24			1904	09	09		88	43		S		
X		2.84	14	15 ATGLEN		RT41	IB	CS	2	2	70	140			1954	02	02		88			2		
	56+	2.89	14	15 ATGLEN		GREEN ST	SA		2	1	30	30			1904	09	09		88			1		
	47	3.00	14	15 ATGLEN		MAIN ST	TG	TB	2	1	40	41			1904	01	01		88	63	3	1		
	47+	3.52	14	15 ATGLEN		STREAM	BA		2	1	5	5			1904	01	01		88			S		
	47+	3.81	14	15 ATGLEN		LR485 RT372	SA		2	1	24	24			1904	01	01		88			2		

BRIDGE NUMBER OLD	NEW	LOCATION ST	CO	TOWN	T.C. MILE	NAME OF CROSSING	TP BR	TP DK	NO TK	NO SP	LGH SP	TOTL LNGH	HOR DIM	VRT DIM	DATE BT	MAINT SB	LD SP	LMT	DT RT	DT IN	RT PR	PT CD	USE CD	REMARKS
	48+	4.03	14	15 ATGLEN		OCTO CR ARD	SA		2	1	60	60			1904	01	01		88	29			1	
X		4.70	14	36 ATGLEN		PVT RD	TT	P	2	1	91	94			1904	00	00	10T	88	81			7	DECK&STR RMVD 11/81
X		5.03	14	36 ATGLEN		PANNALS RD	TT	P	2	1	91	94			1904	00	00		88	48			7	O.S.
	49+	5.77	14	36 ATGLEN		BRKMILL RD	TG	TB	2	1	34	35			1904	01	01		88	65	3	1		
	50+	6.35	14	36 ATGLEN		MHT OAK RD	TG	TB	2	1	40	41			1904	01	01		88	58	1	1		LR 36079
	50+	6.43	14	36 ATGLEN		STREAM	BA		2	1	10	10			1904	01	01		88	40			S	
	51+	7.20	14	36 ATGLEN		PUBLIC RD	TG	TB	2	1	35	35			1903	01	01		88	62	3	1		QUAKER CHURCH RD
	51+	7.52	14	36 ATGLEN		VALLEY RUN	CA		2	1	14	14			1943	01	01		88				S	
	51+	7.61	14	36 BART		VINTAGE RD	SA		2	1	32	32			1904	01	01		88				1	
X		8.22	14	36 BART		RTE 896	PC	CS	2	1	95	95	30		1985	02	02		88				2	LR36081
	52+	8.44	14	36 BART		OCTORARO CR	TG	TB	2	3	65	197			1905	01	01		88	66	3	S		
X		8.78	14	36 BART		LAMPARTER R	TT	PA	2	1	65												7	
							TG	PA	0	2	26	117			1904	00	00	4T	88	64			7	
	53+	9.15	14	36 BART		MT PLST CK	DG	TB	2	3	65	197			1905	01	01		88	68	5	S		
X		9.76	14	36 QRRYVLL		MT PLEAST R	TG	PA	2	1	69												7	
							TG	PA	0	2	60	190			1904	00	00	12T	88	64			7	
X		10.18	14	36 QRRYVLL		HOLLOW RD	TT	LA	2	1	76	80			1904	00	00	5T	88	52			7	
	54+	10.68	14	36 QRRYVLL		BUSHONG RD	TG	TB	2	1	34	35			1904	01	01		88	59	3	1		
	54+	10.90	14	36 QRRYVLL		STREAM	SA		2	1	20	20			1904	01	01		88	51			S	
	55+	11.55	14	36 QRRYVLL		STREAM	SA		2	1	20	20			1903	01	01		88	67			S	
	55+	11.68	14	36 QRRYVLL		LR36086	SA		2	1	30	30			1904	01	01		88	46			2	
X		12.15	14	36 QRRYVLL		HESS RD	PC	C	2	1	77	77			1988	07	07		88				7	PUC A 107709 1/21/88
X		13.32	14	36 QRRYVLL		RT344	DG	CS	0	1	57									59			2	CR PAYS PENNDOT
						E STATE ST	DG	CS	2	1	109												2	HALF MAINT COST

BRIDGE NUMBER OLD	NEW	LOCATION ST CO TOWN	T.C. MILE	NAME OF CROSSING	TP BR	TP DK	NO TK	NO SP	LGH SP	TOTL LNGH	HOR DIM	VRT DIM	DATE BT	MAINT SB	LD SP	LMT	DT RT	DT IN	DT RP	RT PR	PT CD	USE CD	REMARKS
					DG	CS	0	1	109													2	AGHT#288487
					DG	CS	0	1	39	318			1984	02	02			88				2	
	57+	13.54	14	36	QRRYVLL	N LIME ST	DG	TB	2	1	45	45	1903	01	01			88	57		1	1	
	57+	13.65	14	36	QRRYVLL	STREAM	BA		2	1	12	12	1903	01	01			88				S	
	57+	13.79	14	36	QRRYVLL	CR QRRYVLBR	TG	TB	2	1	44	44	1903	01	01			88	63		3	R	QUARRYVLLE BR 15.15
Church St.	✓	13.83	14	36	QURRYVL	CHURCH ST	SA		2	1	47	47	1904	01	01			88				1	RIBBED ARCH
	58+	14.46	14	36	QRRYVLL	OAK BOT RD	SA		2	1	24	24	1905	01	01			88				1	
	58+	14.62	14	36	QRRYVLL	RT 222	SA		2	1	24	24	1903	01	01			88				2	
	58+	14.73	14	36	QRRYVLL	STREAM	SA		2	1	20	20	1903	01	01			88				S	
X		15.00	14	36	QRRYVLL	FAIRV CH RD	TT	PA	2	1	93	96	1904	00	00		9T	88	63			2	LR 36172
	59+	15.42	14	36	QRRYVLL	STREAM	BA		2	1	12	12	1904	01	01			88				S	
X		15.91	14	36	QRRYVLL	CINDER RD	DG	CS	0	1	32											2	LR 36015
							DG	CS	2	1	95											2	BUILT BY STATE
							DG	CS	0	1	14	143	1983	02	02			88				2	
	60+	16.32	14	36	QRRYVLL	STREAM	SA		2	1	20	20	1904	01	01			88				S	
X		16.75	14	36	QRRYVLL	RAHLNSVL RD	PC	C	2	1	92	94		00	00			88	57			2	LR 36015
X		17.12	14	36	QRRYVLL	SAWMILL RD	TG	LA	2	1	62										3	7	PUC I870050 8/27/87
						TR 345	TG	LA	0	1	24											7	
							TG	LA	0	1	29	116	1906	01	12		9T	88	59			7	
	61+	17.56	14	36	QRRYVLL	STREAM	SA		2	1	20	20	1904	01	01			88	49			S	
		18.08	14	36	QRRYVLL	HOLLOW RD	SA		2	1	24	24	1904	01	01			88					
	62+	18.11	14	36	QRRYVLL	STREAM	BA		2	1	10	10	1904	01	01			88	42			S	
	62+	18.50	14	36	SMITHVL	STREAM	BA		2	1	10	10	1905	01	01			88				S	
X		18.69	14	36	SMITHVL	SAWMILL RD	TG	LA	2	1	66						3					7	PUC I870048 8/87

BRIDGE NUMBER OLD	NEW	LOCATION ST	CO	TOWN	T.C. MILE	NAME OF CROSSING	TP BR	TP DK	NO TK	NO SP	LGH SP	TOTL LNGH	HOR DIM	VRT DIM	DATE BT	MAINT SB	LD SP	DT LMT	DT RT	DT IN	RT RP	PT PR	USE CD	CD	REMARKS
							TG	LA	0	2	38	136			1906	01	12	12T	88	83			7		
	63+	19.03	14	36	SMITHVL	RD & STREAM	SA		2	1	20	20			1903	01	01		88	42			9		
Providence Rd N	*63+	19.48	14	36	SMITHVL	RT272 STRM	SA		2	1	39	39			1903	08	01		88	54			2		STRM IN CONC BOX
Providence Rd S	*63+	19.61	14	36	SMITHVL	LR36025	SA		2	1	50	50			1903	01	01		88				2		ALSO STREAM
		20.15	14	36	SMITHVL	STREAM	BA		2	1	6	6			1904	01	01		88				S		
X		20.51	14	36	SMITHVL	RAWNSVL RD	PC	C	2	2	136	272			1985	02	02		88				2		
		20.72	14	36	MRTCFRG	STREAM	CI		2	2	5	6			1905	01	01		88				S		
	65+	21.02	14	36	MRTCFRG	SIGMUN RD	TG	TB	2	1	37	38			1905	01	01		88	58	1	1	1		
	65+	21.54	14	36	MRTCFRG	STREAM	SA		2	1	20	20			1905	01	01		88	52			S		
Martinsville Rd.	*67+	23.04	14	36	MRTCFRG	RT324	SA		2	1	24	24			1905	01	01		88	16			2		
Martic Forge	*67+	23.75	14	36	MRTCFRG	PEQUEA CRK	DR	TB	2	1	98									59	5		S		
							DG	TB	2	8	45										5		S		
						LR36005	DG	TB	2	1	60										5		2		
						PVT ROAD	DG	TB	2	1	67	588			1906	01	01		88	59	5		1		
X		24.26	14	36	MRTCFRG	COLMSVL RD	TT	LA	2	1	92	96			1906	00	00	8T	88	37			7		
	68+	24.40	14	36	SFHRBR	STREAM	BA		2	1	10	10			1905	01	01		88				S		
X		24.64	14	36	SFHRBR	CNSTG RV RD	TG	P	2	1	61												7		BARRICADED BY OTHERS
							TG	P	0	2	50	165			1906	00	00	10T	88	63			7		
	68+	24.98	14	36	SFHRBR	STREAM	BA		2	1	6	6			1905	01	01		88				S		
	69+	25.34	14	36	SFHRBR	STREAM	BA		2	1	12	12			1905	01	01		88				S		
Shenk's Ferry Rd	*69+	25.73	14	36	SFHRBR	SHENKS RD	SA		2	1	24	24			1905	01	01		88				1		
Boatman Run	*70+	26.33	14	36	SFHRBR	BOATMAN RUN	BA		2	1	10	10			1905	01	01		88				S		
Gardners Run	*	26.52	14	36	SFHRBR	GARDNERS RN	BA		2	1	10	10			1905	01	01		88				S		
		27.00	14	36	SFHRBR	STREAM	BA		2	1	6	6			1905	01	01		88	53			S		

BRIDGE NUMBER OLD	NEW	LOCATION ST	CO	TOWN	T.C. MILE	NAME OF CROSSING	TP BR	TP DK	NO TK	NO SP	LGH SP	TOTL LNGH	HOR DIM	VRT DIM	DATE BT	MAINT SB	LD SP	DT LMT	DT RT	DT IN	RT RP	PT PR	USE CD	REMARKS
	27.36	14	36	SFHRBR		CNSTGA CRK	DP	TB	2	1	300											5	1	VIADUCT
							DG	TB	2	1	42											5	1	
							DG	TB	2	4	44											5	1	
							DG	TB	2	12	45											5	1	
							DG	TB	2	3	46											5	1	
							DG	TB	2	1	57											5	1	
							DG	TB	2	3	59											5	1	
						ROAD	DG	TB	2	2	60	1560		1906	01	01		88	64			5	1	
	28.15	14	36	SFHRBR		SILT TUNNEL	CA		2	1	5	5		1954	10	10		88						BRICKED UP
73+	29.58	14	36	SFHRBR		FREYS RUN	CS		2	1	18	18		1926	01	01		88					S	
74+	30.15	14	36	SFHRBR		ESHUMNS RUN	CS		2	1	12	12		1915	01	01		88	39				S	
75+	31.16	14	36	PORT		MANNS RUN	IB	TB	2	1	19	19		1905	01	01		88	33			3	S	
	33.05	14	36	PORT		STRM & RD	SA		2	1	24	24		1905	01	01		88	39				1	
	33.13	14	36	CRSHLL		5.12 PRT RD	TG	OP	2	2	53	111		1906	01	01		88	66			3	R	224 TIES TRK B 87
	33.25	14	36	CRSHLL		STREAM	MP		2	1	8	8		1941	01	01		88					S	
77+	33.99	14	36	MANOR		BURDS RUN	BA		2	1	10	10		1905	01	01		88					S	
78+	34.39	14	36	MANOR		DRY RUN	BA		2	1	10	10		1905	01	01		88					S	
79+	35.03	14	36	MANOR		STAMENS RUN	DG	TB	2	1	35	35		1905	01	01		88	39			3	S	
79+	35.41	14	36	MANOR		SHUMANS RUN	BA		2	1	10	10		1905	01	01		88					S	
	37.23	14	36	MANOR		STRCKLR RUN	SA		2	1	40	40		1905	01	01		88					S	
	37.79	14	36	MANOR		SHAWNEE RUN	BA		2	1	15	15		1905	01	01		88					S	
Y	37.90	14	36	MANOR		SIGNAL BRDG	TT		3	1	51	51			01	01		88						
X	38.29	14	36	COLUMBI		RT 462	DG	C	2	2	46	103		1929	02	02		88					2	
	38.38	14	36	COLUMBI		STREAM-SEW	BA		5	1	6	6		1905	01	01		88					S	